A CITIZEN’S GUIDE
TO
NATIONAL OIL COMPANIES

Part B
Data Directory

October 2008
This paper is an informal document intended to provide input for the selection of a sample of representative national oil companies to be analyzed within the context of the Study on National Oil Companies and Value Creation launched in March 2008 by the Oil, Gas, and Mining Policy Division of The World Bank. The manuscript of this paper has not been prepared in accordance with the procedures appropriate to formally edited texts. Some sources cited in this paper may be informal documents that are not readily available.

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<td>Bureau of Economic Geology</td>
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ACKNOWLEDGMENTS

This Citizen’s Guide to National Oil Companies presents the results of a survey intended to provide input for the selection of a sample of representative national oil companies to be fully analyzed within the Study on National Oil Companies and Value Creation (launched in March 2008) by the Oil, Gas, and Mining Policy Division of The World Bank.

The task manager for this report was Silvana Tordo (lead energy economist, Oil, Gas and Mining Division of the World Bank). The research was led Michelle Michot Foss, chief energy economist and head of the Center for Energy Economics, Bureau of Economy Geology, Jackson School of Geosciences at the University of Texas at Austin, and her team—Gurcan Gulen, senior energy economist; Miranda Ferrell Wainberg, senior researcher; Ruzanna Makaryan, senior energy analyst; Dmitry Volkov, energy analyst; Mariano Gurfinkel, former Assistant Head (now Unconventional Resources and New Ventures, Hess Corporation); Omar Valdez, Columbia University, School of International Public Affairs; Jim Starr, University of Richmond. Inputs and comments were also provided by a number of advisors and mentors, including: Bhamy Shenoy, consultant; Alfred Boulos, Boulos International; Jonathan Stern, Oxford Institute of Energy Studies; Javier Estrada, Analytica Energetica; Ernesto Marcos, Marcos y Asociados. The comments of World Bank reviewers—Olivier Fremond (country manager, AFMGA), Jonathan Walters (sector manager, MNSSD), Clive Armstrong (lead economist, COCSC), and Michael Levistky (lead economist, COCPO), and the contribution of the task manager are gratefully acknowledged. Special thanks go to Stephen Spector for editing the report and Esther Petrilli-Massey for coordinating its publication.

LIST OF ACRONYMS

BOD Board of Directors
BOE Barrels of oil equivalent
CEE Center for Energy Economics at the University of Texas-Austin
CSR Corporate social responsibility
DA Data attribute
E&P Exploration and Production
EBIT Earnings before interest payments on borrowings and taxes
EITI Extractive Industries Transparency Initiative
EOY End of year
ESMAP Energy Sector Management Assistance Program (World Bank)
GAAP Generally Accepted Accounting Principles
GDP Gross domestic product
HC Hydrocarbon
HR Human resources
IFRC International Financial Reporting Standards
IOC International oil company
IPO Initial public offering
IPP Independent power producer
LNG  Liquefied natural gas
LPG  Liquefied petroleum gas
MW   Megawatt
NGL  Natural gas liquids
NOC  National oil company
PSA  Production Sharing Agreement (also known as Production Sharing Contract)
R/P  Reserves-to-production (expressed in years)
RMB  Renminbi, Chinese currency
ROA  Return on assets
ROCE Return on capital employed
SEC  Securities and Exchange Commission
SOE  State-owned enterprise
USEIA United States Energy Information Administration
WGI  World Governance Indicators
WTO  World Trade Organization

**COMMON VOLUMETRIC TERMS**

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<tr>
<td>MCF</td>
<td>Thousand cubic feet (of natural gas)</td>
</tr>
<tr>
<td>MMCF</td>
<td>Million cubic feet</td>
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<tr>
<td>MCF/D</td>
<td>Thousand cubic feet per day</td>
</tr>
<tr>
<td>MMCF/D</td>
<td>Million cubic feet per day</td>
</tr>
<tr>
<td>BCF</td>
<td>Billion cubic feet</td>
</tr>
<tr>
<td>BCF/D</td>
<td>Billion cubic feet per day</td>
</tr>
<tr>
<td>TCF</td>
<td>Trillion cubic feet</td>
</tr>
<tr>
<td>MB</td>
<td>Thousand barrels (of oil or oil equivalent)</td>
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<tr>
<td>MMB</td>
<td>Million barrels</td>
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<tr>
<td>MB/D</td>
<td>Thousand barrels per day</td>
</tr>
<tr>
<td>MMB/D</td>
<td>Million barrels per day</td>
</tr>
<tr>
<td>MCM</td>
<td>Thousand cubic meters</td>
</tr>
<tr>
<td>MMT</td>
<td>Million tonnes (metric tons)</td>
</tr>
<tr>
<td>TPA</td>
<td>Tonnes (metric tons) per annum</td>
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<td>Avg total cost incurred in upstream oil &amp; gas activities/avg net BOE reserve additions</td>
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<td>Across all periods</td>
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<td>Change in BOE production (%)</td>
<td>Across all periods</td>
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<td>*(DDA + results of operations from producing activities)/total upstream CAPEX</td>
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OVERVIEW OF THE GUIDE

At the request of the World Bank, the Center for Energy Economics at the University of Texas–Austin (CEE) undertook a broad survey of national oil companies (NOCs) to assemble background information in support of further analysis (the upcoming *Study on NOCs and Value Creation*, due to be completed in 2010). The Bank’s ultimate goal is to improve the understanding of these organizations and the role each plays within its country’s economic development trajectory. This will lead to improved policy recommendations in a sector that has major political, social, and developmental impacts.

This guide presents a collection and preliminary analysis of data on a large group of NOCs, and provides a starting point for discussion in resource-rich countries among policy makers, civil society, and other stakeholders to engage on these issues with the objective of strengthening and improving the contribution of NOCs to economic and social development.

**Why a Citizen’s Guide to NOCs?**

NOCs control the dominant share of worldwide hydrocarbon resource endowments as well as many of the major oil and gas infrastructure systems. This can be overtly, as actual producers, or as the “gatekeepers” for exploitation access by international energy companies. As such, NOCs are of great consequence to hydrocarbon sector performance.

Even the smallest NOCs are powerful organizations within their nation-states. They are charged with serving the public interest in a number of ways: supplying essential energy fuels and associated services, generating revenue streams that contribute to economic development, responsibly managing environmental and other risks, and performing well in many other regards.

NOCs differ from each other in many respects: some rely on a monopolistic position in their home country while others face competition; some participate in joint ventures while others operate on a sole risk basis; some operate internationally while others remain in their home country, some concentrate on particular segments of the value chain while others are fully integrated, etc. Each NOC faces distinct challenges and has a different economic, social and political impact. A systematic collection of data on NOCs is a first steps towards improving the understanding of these differences.
Organization of the Guide

The analysis presented in this *Citizen’s Guide to National Oil Companies* (hereafter, the Guide), focuses on the drivers and measures of NOCs’ performance along a variety of measures. The Guide is composed of two parts: Part A, a technical report and Part B, a data directory. The Guide’s analysis is entirely based on information drawn from public domain sources, rather than private and proprietary documents that are not accessible by wide audiences.

Both Part A and Part B of the Guide are available and can be downloaded via the Internet on both the World Bank and CEE-UT websites. Interested readers should check [http://www.worldbank.org/noc](http://www.worldbank.org/noc) and [www.beg.utexas.edu/energyecon](http://www.beg.utexas.edu/energyecon) for updates.

PART B. DATA DIRECTORY

NOCs contained in this Directory

The Data Directory contains all data and information collected on the NOCs surveyed in the Guide. These are listed in below, by region and in alphabetical order by country. The information contained in this Directory is updated to the summer 2008. Quantitative data cover the period 2004-07. It is our intention to continue updating this Directory with additional information as it may become available or as may be provided by the relevant countries and NOCs.

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Structure of the Directory

In this Directory, data and information is presented by region and by company. For each of the 49 NOCs presented in the Guide, the following information is provided:

(a) A summary report highlighting the key features of the corporate governance and performance of each NOC; and

(b) A data table organized along the primary dimensions of analysis (DAs) described in Part A of the Guide.

Appendix 1 of Part A of the Guide, Technical Report, provides details on the DAs and indicators and metrics used for the Data Directory. For ease of reference, definitions used in this Data Directory are provided above.

The data contained in this Data Directory was compiled between May and July 2008. Data on macro variables—such as oil and gas reserves and production, country gross domestic product (GDP) and so on—are the most recent available (2006–2007). Resource endowment data are taken from industry sources. Macro economic data are derived from official publications of the International Monetary Fund and the World Bank\(^1\). Operational and financial performance results are calculated as average of data reported by NOCs in the period 2004–2007. Financial ratios, such as returns on assets, are compiled using the averages. The reader should note that not all NOCs and/or government data are reported for all years in the 2004–2007 timeframe. In order to improve consistency across all NOCs in the Directory, 2007 is the most recent year for reporting.

Information reported in quotes is a citation from public domain sources used to compile this Data Directory. We also need a caveat: a problem that clearly emerged during the collection and interpretation of data was the need to deal with the ample variation in the quality of data made publicly available by NOCs and their governments. The use of experts’ opinion (specialized research teams, World Bank, industry and governments’ experts) only partially addresses this limitation. As highlighted in Part I, it is important to remind the readers that the analysis presented in this Guide clearly implies a certain level of judgement and subjectivity.

The NOCs in East Asia and the Pacific
## Corporate Governance Highlights

**Corporate Organization and Ownership**
CNOOC Ltd. is a joint stock company incorporated in the People’s Republic of China (PRC). Its ultimate parent company is China National Offshore Oil Corp. (CNOOC-Parent) which is 100% owned by the government. CNOOC-Parent owns 100% of Overseas Oil & Gas Corp., Ltd. (Bermuda) which in turn owns 100% of CNOOC (BVI) Ltd. (British Virgin Islands) which in turn owns 66% of CNOOC Ltd.

**Shares Controlled by Government**
100% government owned CNOOC-Parent owns 66% of the shares of CNOOC Ltd through various internationally-based wholly owned subsidiaries.

**Domestic, International Exchanges for Equity Listings**
CNOOC Ltd. is listed on the Hong Kong Stock Exchange and the New York Stock Exchange.

**Board of Directors Structure**
The BOD has 12 members: 7 are company officers and 5 are independent. The Nomination Committee (2 independent directors, 1 company director) nominates directors which are elected by shareholders. CNOOC-Parent exercises all the rights of a controlling shareholder, including election of directors and voting to amend CNOOC Ltd.'s articles of association.

**Independent Board Members**
There are 5 independent directors which are nominated by the Nomination Committee and elected by shareholders. See "Board of Directors Structure" above.

**Is chairman also minister of energy or otherwise appointed by head of state?**
The Chairman is the Chief Executive Officer of CNOOC Ltd. See "Board of Directors Structure" above.

## Operations Highlights

**Upstream Oil**
CNOOC Ltd. is the only company permitted to operate offshore China, either alone or in association with other companies subject to Production Sharing Contracts negotiated by CNOOC-Parent with input from CNOOC Ltd. CNOOC Ltd. has the right to take up to a 51% interest in any commercial discovery offshore China. In 2006 48% of domestic oil production came from assets subject to PSAs and 52% came from independent operations. CNOOC Ltd. also operates internationally: primarily in Indonesia, Australia and Nigeria and secondarily in Equatorial Guinea, Philippines, Kenya and Myanmar. In 2006 international oil production represented 6% of total oil production.

**Midstream Oil**
CNOOC is not in this business domestically or internationally.

**Downstream Oil**
CNOOC is not in this business domestically or internationally.

**Upstream Natural Gas**
CNOOC Ltd. is the only company permitted to operate offshore China, either alone or in association with other companies subject to Production Sharing Contracts negotiated by CNOOC-Parent with input from CNOOC Ltd. CNOOC Ltd. has the right to take up to a 51% interest in any commercial discovery offshore China. In 2006 41% of domestic gas production came from assets subject to PSAs and 59% came from independent operations. CNOOC Ltd. also operates internationally: primarily in Indonesia, Australia and Nigeria and secondarily in Equatorial Guinea, Philippines, Kenya and Myanmar. In 2006 international gas production represented 27% of total gas production.

**Midstream Natural Gas**
CNOOC is not in this business domestically or internationally.

**Downstream Natural Gas**
CNOOC Ltd has a 25% interest in the China LNG Joint Venture project with the 6 original partners in the Northwest Shelf Australia LNG Project. Commercial operation began in 2006. CNOOC-Parent, CNOOC Ltd's controlling shareholder, has one regasification facility in operation (Guangdong province) and one under construction (Fujian province). LNG supply for the Guangdong is under a 25 yr. contract with Australia's NW Shelf consortium. Fujian will receive LNG from BP's Tangguh consortium in Indonesia.

**Other**
None.
**Operations Performance Highlights (2004-2007; not all years or data reported)**

**Upstream:**
- **Average Proved Oil Reserves (MM Barrels):** 1,463
- **Average Proved Gas Reserves (BCF):** 5,401
- **Average Annual Oil Production (MM Barrels):** 127
- **Average Annual Natural Gas Production (BCF):** 147

**Downstream:**
- **Average Annual Refinery Production (MM Barrels):** No data

**Financial Performance Highlights (2004-2007; not all years or data reported)**

- **Consolidated Average Total Revenues ($Millions):** 8,853
- **Consolidated Average Total Assets ($Millions):** 15,085
- **Consolidated Average EBIT ($Millions):** 4,651
- **Consolidated Average Net Income ($Millions):** 3,003

**Categorization Indicators**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
</tr>
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<tbody>
<tr>
<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
<td>64</td>
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<td>Commercialization</td>
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<tr>
<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>61</td>
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<tr>
<td>Average</td>
<td>73</td>
</tr>
</tbody>
</table>

**Worldwide Governance Indicators**

**Trends and Issues**

Approximately half of CNOOC Ltd’s reserve base is proved undeveloped. The company has numerous development projects planned and their implementation should lead to production growth. Development of natural gas assets is a focus area of the company. CNOOC Ltd. has gas reserves in the South and East China Seas and has invested in a LNG project in Australia. CNOOC – Parent has invested in LNG regasification facilities in China. Like many companies worldwide, CNOOC Ltd.’s costs have increased: Production costs rose 21% from 2005 to 2006 and reserve replacement cost rose from $9.78/BOE to $23.37/BOE over the same time period.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>3</td>
<td>CNOOC Ltd. or CNOOC (a subsidiary of China National Offshore Oil Corporation) has the exclusive right to explore and produce oil and gas offshore.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>3</td>
<td>Three. CNOOC Ltd. or CNOOC (a subsidiary of China National Offshore Oil Corporation) is one of three NOCs operating in the PRC. The other two NOCs are PetroChina Company Ltd. or PetroChina (a subsidiary of China National Petroleum Corp. or CNPC) and China Petroleum &amp; Chemical Corporation or Sinopec (a subsidiary of the Sinopec Group Company).</td>
</tr>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is a joint stock company incorporated in the PRC. Its ultimate parent company is China National Offshore Oil Corp. (CNOOC-Parent) which is 100% owned by the government. CNOOC-Parent owns 66% of the shares of CNOOC Ltd through various internationally-based subsidiaries as follows: CNOOC-Parent owns 100% of Overseas Oil &amp; Gas Corp., Ltd. (Bermuda) which in turn owns 100% of CNOOC (BVI) Ltd. (British Virgin Islands) which in turn owns 66% of CNOOC Ltd.</td>
</tr>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
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<td>66%</td>
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<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
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<td>CNOOC Ltd. is listed on the Hong Kong Stock Exchange and the New York Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>1</td>
<td>The Chairman is the Chief Executive Officer of CNOOC Ltd. See &quot;Board of Directors Structure&quot; above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>1</td>
<td>There are 5 independent directors which are nominated by the Nomination Committee and elected by shareholders. See &quot;Board of Directors Structure&quot; above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>1</td>
<td>The Terms of Service are undisclosed.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2006</td>
<td>1</td>
<td>To appoint corporate officers, and executive management; To review operating and financial performance; to approve financial statements; to appoint independent auditors; to approve debt issuance; to declare dividends; to approve registration of securities; to evaluate management performance and to set compensation levels; to monitor code of ethics and compliance with business conduct policies.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2006</td>
<td>1</td>
<td>The BOD has considerable power and authority. CNOOC-Parent, the majority shareholder, has a considerable influence on the selection of directors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2006</td>
<td>1</td>
<td>Undisclosed.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2006</td>
<td>1</td>
<td>CNOOC prepares the capital budget annually. It has a formal strategic planning process in which the Ministry of Commerce and the National Reform and Development Commission participate. It also has an International Advisory Board that provides strategic advice. Government approvals are required for new independent development and production projects and new production sharing contracts (PSAs).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2006</td>
<td>1</td>
<td>The budget is a predictable annual process. Government entities participate at various stages of budget preparation and/or approval (see above). The budget process is separate from the national budget process.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2006</td>
<td>1</td>
<td>CNOOC-Parent has the exclusive right to enter into PSAs with foreign companies for offshore exploration and production. CNOOC Ltd advises CNOOC-Parent on PSA negotiations, but the Parent has ultimate decision on PSA terms.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>4</td>
<td>Focus on reserves and production growth; develop and expand natural gas business; maintain financial discipline.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting</td>
<td>2006</td>
<td>1</td>
<td>Historically the company has had sufficient cash flow from operations to fund its investment portfolio and has registered</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>increases in reserves and production.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>1</td>
<td>In 2006 the financial auditor was Ernst &amp; Young and the reserves auditor was Ryder Scott.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2006</td>
<td>1</td>
<td>In 2006 68% of employees were involved in exploration and production activities; 7% were in accounting/finance and the remainder was senior management, PSA coordinators and environmental supervisors. There is a union but no strikes or other labor protests have been reported.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008, 2006</td>
<td>1, 4</td>
<td>There is no public disclosure of HR policies. HR goals are not part of the company goals except for the following statement of responsibility: &quot;We will not sacrifice our employees' individual development.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008, 2006</td>
<td>1, 4</td>
<td>Limited and generally qualitative.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008, 2006</td>
<td>1, 4</td>
<td>Non-commercial objectives appear limited. CNOOC's employee base is small relative to PetroChina and Sinopec. Also unlike the other two NOCs, CNOOC generally obtains market prices for its production and does not provide price subsidies.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is the only company permitted to operate offshore China, either alone or in association with other companies subject to Production Sharing Contracts negotiated by CNOOC-Parent with input from CNOOC Ltd. CNOOC Ltd. has the right to take up to a 51% interest in any commercial discovery offshore China (but exceptions have been made in specific cases). In 2006 48% of domestic oil production came from assets subject to PSAs and 52% came from independent operations.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. also operates internationally: primarily in Indonesia, Australia and Nigeria and secondarily in Equatorial Guinea, Philippines, Kenya and Myanmar. In 2006 international oil production represented 6% of total oil production.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006</td>
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<td>CNOOC Ltd. is not in this business.</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is not in this business.</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is the only company permitted to operate offshore China, either alone or in association with other companies subject to Production Sharing Contracts negotiated by CNOOC-Parent with input from CNOOC Ltd. Until 2006 CNOOC Ltd has the right to take up to a 51% interest in any commercial discovery offshore China (this percentage was decreased to 30% for certain deepwater blocks). In 2006 41% of domestic gas production came from assets subject to PSAs and 59% came from independent operations. CNOOC Ltd. also operates internationally:</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>Year of Source of Data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd has a 25% interest in the China LNG Joint Venture project with the 6 original partners in the Northwest Shelf Australia LNG Project. Commercial operation began in 2006. CNOOC-Parent has one regasification facility in operation (Guangdong province) and one under construction (Fujian province). LNG supply for the Guangdong is under a 25-year contract with Australia's NW Shelf consortium. Fujian will receive LNG from BP's Tangguh consortium in Indonesia.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is not in these businesses.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
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<td>1</td>
<td>None.</td>
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<td>Value Creation Metrics</td>
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<td>Value Creation Metrics</td>
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<td>Value Creation Metrics</td>
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<td>21%</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>$31.22</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>35%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>90%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital</td>
<td></td>
<td>116%</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>53%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>34%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>116%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong> Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Other Factors | Public Sector Governance | Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives | 2007 | 6 | In December 2007 the PRC published an overall energy policy with focus on domestic hydrocarbons exploration and production. Coal-bed methane gas, oil shale and tar sands were targeted. Improvement of the oil and gas pipeline system was emphasized. Improvement of the legal system for hydrocarbon development in China was considered an imperative, and other countries’ oil and gas legislation was being studied. The policy paper further recognized the need to reform pricing mechanisms along the energy value chain. Increasing foreign participation in upstream oil and gas was among the objectives of the energy policy. |

<p>| Other Factors | Public Sector Governance | Based on available information, clear definition of the roles of policy, commercial | 2006 | 1 | The commercial function appears to be clearly separated from policy and regulatory functions. The latter two appear to be entrusted to various government entities with overlapping functions. |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>4</td>
<td>Focus on reserves and production growth; develop and expand natural gas business; maintain financial discipline.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2006</td>
<td>1</td>
<td>CNOOC does not have publicly stated non-commercial objectives. It does not provide price subsidies. When CNOOC was partially privatized, the government assumed pension liabilities for current, laid off and retired workers. CNOOC’s only pension obligation is to make an annual contribution to the relevant government pension scheme. The contribution is expensed annually.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>Petroleum revenues received by the government are not segregated from other sources of revenue, and are managed in accordance with the country’s public finance management procedures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>7</td>
<td>Not participating.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon</td>
<td>2006, 2007</td>
<td>1, 3, 6</td>
<td>Historically the three Chinese NOCs have been able to fund capital expenditures from operating cash flow. With</td>
</tr>
</tbody>
</table>
China: China National Offshore Oil Company (CNOOC)

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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>2006 1, 3</td>
<td>USEIA</td>
<td>USEIA notes that Chinese NOCs are focused on meeting domestic demand. &quot;Many foreign companies have been contracted to undertake oil exploration and production activities in China. China’s NOCs are entitled by law to take up to 51 percent) stake in any commercial discovery. The back-in rights were reduced to up to 31 percent for certain deepwater blocks in specific bidding rounds. The NOCs can also take over field operations once the contracted firm has recovered its development costs. In offshore zones, CNOOC reserves the right to take over operations at any new discoveries, although certain shallow water locations such as the Zhao Dong field in the Bohai Bay are exempt. The Chinese government typically mandates a royalty fee of 12.5 percent for foreign companies involved in the oil sector,</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator (Query)</td>
<td>Source</td>
<td></td>
<td>respect to non-NOC participants, interest is centered on the upstream offshore due to the maturity of onshore resources and the unattractive refined products pricing schemes. Increasing foreign participation in the hydrocarbon sector is one of PRC’s policy goals. In line with the foregoing, CNOOC's required &quot;back-in&quot; for commercial discoveries in certain deepwater blocks offered in some bidding rounds was reduced from up to 51% to up to 30%.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Source</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator (Query)</td>
<td>Source</td>
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<td>Indicator Description</td>
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<td></td>
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Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings.

2006 1, 3 USEIA notes that Chinese NOCs are focused on meeting domestic demand. "Many foreign companies have been contracted to undertake oil exploration and production activities in China. China’s NOCs are entitled by law to take up to 51 percent) stake in any commercial discovery. The back-in rights were reduced to up to 31 percent for certain deepwater blocks in specific bidding rounds. The NOCs can also take over field operations once the contracted firm has recovered its development costs. In offshore zones, CNOOC reserves the right to take over operations at any new discoveries, although certain shallow water locations such as the Zhao Dong field in the Bohai Bay are exempt. The Chinese government typically mandates a royalty fee of 12.5 percent for foreign companies involved in the oil sector, |

Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment.
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<tbody>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2004</td>
<td>5</td>
<td>The PRC Exploitation of Offshore Oil Resources in Cooperation with Foreign Parties Regulations (1982) and the PRC Exploitation of Onshore Oil Resources in Cooperation with Foreign Parties Regulations (1993) and implementing regulations govern oil and gas exploration and production activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2006</td>
<td>1, 3</td>
<td>There are many PSAs, particularly in the offshore area.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>1, 3</td>
<td>CNOOC works in association with other oil companies through production sharing contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Ltd. is an upstream company.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments</td>
<td></td>
<td></td>
<td>Yes.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2006</td>
<td>1, 3</td>
<td>Numerous particularly offshore.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as</td>
<td>2006</td>
<td>1, 3</td>
<td>Non-NOC participants required to negotiate PSAs with the NOC. Until 2006 the NOC had the right to &quot;back-in&quot;, without paying exploration costs, into any commercial discovery for up to a 51% interest (with some exceptions). This was later</td>
</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>partner</td>
<td></td>
<td></td>
<td>reduced to up to 31% for certain deepwater blocks in specific bidding rounds.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Not applicable for CNOOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td></td>
<td></td>
<td>Not applicable for CNOOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2006</td>
<td>1, 3</td>
<td>Numerous alliances between CNOOC and non-NOCs domestically and internationally.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2006</td>
<td>1</td>
<td>Non-government shareholders own 34% of CNOOC Ltd.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006</td>
<td>1</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2006</td>
<td>1</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained</td>
<td>2006</td>
<td>1</td>
<td>The regulatory functions are entrusted to various government entities. In particular, the Ministry of Land and Resources,</td>
</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers</td>
<td>2006</td>
<td>1</td>
<td>Only partially given CNOOC's &quot;back-in&quot; right (see above).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2006, 2007</td>
<td>1, 6</td>
<td>The regulatory functions reside in several ministries. Data provision has improved and further improvement efforts are continuing: “In light of the demand of transparency of the WTO, China has relaxed control over the scope of geological data of a public welfare nature, strengthened the work of releasing energy policies, improved the energy data and statistics system and promptly released energy statistics, so as to ensure the openness and transparency of energy policies, statistics and information” (Energy Policy Paper 2007)</td>
</tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>1</td>
<td>CNOOC is not required to sell crude oil below market price (while PetroChina and Sinopec are required to sell certain refined products below market price).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. Brief description of programs and support</td>
<td>2006</td>
<td>1, 4</td>
<td>Limited information is available on this point.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$5,553.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$3,259.05</td>
<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1, 6</td>
<td>Good with respect to NOC SEC Form 20Fs. “China recognizes the need for transparent and high quality energy data and is striving for continuous improvement in this arena.”</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>CNOOC Parent was established in 1982. CNOOC Ltd. was incorporated in 1999 in Hong Kong, under the Hong Kong Companies Ordinance. CNOOC Parent transferred all of its then and current operational and commercial interests in its offshore petroleum business to CNOOC Ltd.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>50% of CNOOC Ltd’s reserve base is proved undeveloped. The company has numerous development projects planned and their implementation should lead to production growth. Development of natural gas assets is a focus area of the company. CNOOC Ltd. has gas reserves in the South and East China Seas and has invested in a LNG project in Australia. CNOOC – Parent has invested in LNG regasification facilities in China. Like many companies worldwide, CNOOC Ltd.’s costs have increased: Production costs rose 21% from 2005 to 2006 and reserve replacement cost rose from $9.78/BOE to $23.37/BOE over the same time period.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>2006</td>
<td>2,716</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>2006</td>
<td>56,229</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>2006</td>
<td>15.08</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of)</td>
<td>2006</td>
<td>-6.32%</td>
<td></td>
</tr>
<tr>
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<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-2.59%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>15,493.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>66,541.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>26,966.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited through the three NOCs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>93%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>8.44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>57.46%</td>
<td></td>
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## China: China National Offshore Oil Company (CNOOC)

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</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.97%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>51.76%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
<td></td>
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## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
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<tr>
<td>1</td>
<td>2006</td>
<td>CNOOC SEC Form 20F 2006</td>
<td><a href="http://www.sec.gov">www.sec.gov</a></td>
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<tr>
<td>3</td>
<td>2006</td>
<td>USEIA, Country Analysis Brief-China, 12/13/06</td>
<td><a href="http://www.eia.doe.gov">www.eia.doe.gov</a></td>
</tr>
<tr>
<td>4</td>
<td>2008</td>
<td>Company website</td>
<td><a href="http://www.cnoocltd.com">www.cnoocltd.com</a></td>
</tr>
<tr>
<td>7</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
</tr>
</tbody>
</table>
China: PetroChina

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
PetroChina Company Limited is a joint stock company incorporated in the PRC. It is a subsidiary of China National Petroleum Corporation (CNPC). CNPC is 100% owned by the government. CNPC owns 86.29% of PetroChina's shares.

Shares Controlled by Government
86.29%

Domestic, International Exchanges for Equity Listings
Hong Kong, New York

Board of Directors Structure
11 directors elected at a meeting of shareholders for a term of three years, renewable upon re-election and re-appointment. 5 of the directors are currently affiliated with CNPC or an affiliate of CNPC.

Independent Board Members
3 are independent, non-executive; same appointment process.

Is chairman also minister of energy or otherwise appointed by head of state?
No. Appointments to the company’s BOD are approved by the shareholders, and de facto controlled by CNPC as majority shareholder of PetroChina.

Operations Highlights

Upstream Oil
The company operates in China and abroad in 12 countries including Kazakhstan, Peru, Venezuela, and Indonesia. Formed international joint venture entity with CNODC (Central Asia Petroleum Company Ltd) and CNPC E&D) into which overseas assets owned by CNODC were transferred. PetroChina does not have sole access to Chinese hydrocarbons resources.

Midstream Oil
In China, the company owns 9,620 kilometers of crude oil pipelines with an average daily throughput of approximately 2.50 million barrels; crude oil storage facilities with an aggregate storage capacity of approximately 17.2 million cubic meters; 2,413 kilometers of refined product pipelines with an average daily throughput of approximately 37,000 tons; refined product storage facilities with a total storage capacity of approximately 18.7 million cubic meters.

Downstream Oil
The company owns 26 refineries, 22 regional sales and distribution branch companies and one lubricants branch company. These operations include the refining, transportation, storage and marketing of crude oil, and the wholesale, retail and export of refined products, including gasoline, diesel, kerosene and lubricants.

Upstream Natural Gas
The company is the largest natural gas producer in China (Sichuan is the largest gas region).

Midstream Natural Gas
The company is the largest natural gas transporter and seller. 19,662 km of pipelines (95% of China's total capacity). Developed and operates West to East pipeline. No LNG developments.

Downstream Natural Gas
The company owns 12 chemical plants and four chemical products sales companies. Produces and markets basic petrochemical products, derivative petrochemical products, and other chemical products.

Other

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>10,750</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>47,917</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>826</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>1,331</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>579</td>
</tr>
</tbody>
</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>67,315</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>93,887</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>26,331</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>16,151</td>
</tr>
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Categorization Indicator

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Corporate Governance</td>
<td>69</td>
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<tr>
<td>Public Sector Governance</td>
<td>64</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
<td>5</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>97</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>72</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>54</td>
</tr>
<tr>
<td>Average</td>
<td>68</td>
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</table>

Worldwide Governance Indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate Governance</th>
<th>Public Sector Governance</th>
<th>Fiscal Regimes</th>
<th>Commercialization</th>
<th>Government Effectiveness</th>
<th>Rule of Law</th>
<th>Control of Corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2002</td>
<td></td>
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<tr>
<td>2006</td>
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<tr>
<td>2009</td>
<td></td>
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</table>

Trends and Issues

China became a net importer of oil in the late 1990s. China’s energy policy and energy security considerations have guided the reorganization of the sector and inform the strategies of the NOC.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>4</td>
<td>China National Petroleum Corporation (CNPC) of which PetroChina is the listed arm, is one of three NOCs operating in the PRC. The other two NOCs are CNOOC and Sinopec. CNPC/PetroChina and Sinopec have the exclusive rights to explore and produce oil and gas onshore.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>4</td>
<td>3 - CNPC (China national Petroleum Corp of which PetroChina is a subsidiary), Sinopec (China Petroleum and Chemical Corporation, CNOOC (China national Offshore Oil Company)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>3</td>
<td>PetroChina Company Limited is a subsidiary of China national Petroleum Corp (CNPC). CNPC is 100% owned by the government. CNPC owns 86.29% of PetroChina's shares. PetroChina was established as a joint stock company with limited liabilities under the Company Law of the PRC on November 5, 1999, as part of the restructuring of CNPC. In the restructuring, CNPC injected into PetroChina most of the assets and liabilities of CNPC relating to its exploration and production, refining and marketing, chemicals and natural gas businesses.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006 2007</td>
<td>3 15</td>
<td>86.29%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006 2007</td>
<td>3 15</td>
<td>Hong Kong, New York, Shanghai.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006 2007</td>
<td>3 15</td>
<td>Hong Kong, New York, Shanghai.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>3</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006 2007</td>
<td>3 7</td>
<td>11 directors elected at a meeting of shareholders for a term of three years, renewable upon re-election and re-appointment. 5 of the directors are currently affiliated with CNPC or an affiliate of CNPC (i.e., current or former employees of CNPC, or members of the BOD of PetroChina)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>3</td>
<td>No. Appointments to the company's BOD are approved by the shareholders, and de facto controlled by CNPC as majority shareholder of PetroChina.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>3</td>
<td>3 are independent, non-executive; same appointment process.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>3</td>
<td>3 years with re-election and re-appointment upon expiration of term of office.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2006 2007</td>
<td>3 7</td>
<td>Functions and powers include: to be responsible for the convening of the shareholders' general meeting and to report its work to the shareholders in general meetings; to implement the resolutions passed by the shareholders in general meetings; to determine the company's business plans and investment proposals; to formulate the company's annual preliminary and final financial budgets; and to formulate the company's profit distribution proposals and loss recovery proposals.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>Current</td>
<td>5</td>
<td>Yes. A supervisory committee exists, including members that represent employee interests, but is subject to removal by shareholders if so voted. Company statements clarify that CNPC, which is the majority shareholder, does not interfere in PetroChina operations. Statements also clarify that the BOD, Supervisory Committee and management team headed by the president of the company all work independently.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<tr>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>Current</td>
<td>5</td>
<td>Three teams have been established: management team, professional technical team and skills operating team. For management, &quot;Measures such as open selection, competitive recruitment, job rotation and performance evaluation are adopted to form high-level management teams and improve management capability and quality&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2000, 2006, Current</td>
<td>6, 3, 5</td>
<td>No government approval needed for capital expenditures in oil and gas activities under RMB 50 MM; above that amount approvals are required. Government approvals also required for borrowings from foreign banks and foreign governments. Risk factors with respect to budget and decision making authority were identified in the IPO (and repeated in all subsequent filings): &quot;the Company will be controlled by CNPC, whose interests may differ from those of other shareholders&quot;; &quot;CNPC may seek to influence the dividend policy of the Company because of its reliance on dividends received from the Company&quot;; &quot;business of the Company is substantially dependent on the provision by CNPC and CNPC's affiliates of services and products for which the Company currently has limited alternative sources of supply&quot;; &quot;the Company's ability to achieve a number of planned cost reductions may be limited by local governments in China&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2006, Current</td>
<td>3, 6</td>
<td>Yes, in principles.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2006, Current</td>
<td>3, 7</td>
<td>Needs permission if plans to partner with foreign entities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>7</td>
<td>Development objective to build PetroChina into international energy company with strong competitiveness.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2006</td>
<td>4</td>
<td>Appears to have ample cash for reinvestment. Uses short and long term borrowings to supplement cash. Mainly uses short term borrowings to finance business operations. Must obtain government approval for certain investments and foreign borrowings. Some borrowings are from other CNPC subsidiaries.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2006, Current</td>
<td>3, 5</td>
<td>Less than 1% of employees are management level in opcos or other units. Majority of employees (55%) are in E&amp;P. &quot;By the end of 2007, the Company employed 13 academicians from the Chinese Academy of Sciences and the Chinese Academy of Engineering, and almost 700 experts who enjoyed from government allowances, 108 professional technical experts, 79 high-skill experts and 1,200 experts in various fields.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>Current</td>
<td>5</td>
<td>Professional technical teams undertake research projects, lead important projects, hold academic exchanges, and engage in further study and systematic training. Accumulated investment in training exceeded RMB0.8 billion Yuan; about 2.8 million employee trainings with, on average, each employee receiving more than 5 days of training per year. In 2007, &quot;organized 115 core training programs with attendance of 9,151 employee-times; regional companies organized over 1,600 professional training programs with 520,000 employees-times and more than 98% of professional staff on key posts receiving training&quot;</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>Current, 2007</td>
<td>5, 7</td>
<td>No detailed disclosure, except for refining losses which are reported, and price subsidies which are discussed by the company in the press. Social/economic role described in qualitative terms.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2000</td>
<td>6</td>
<td>Upon IPO non-commercial objectives and obligations were transferred to the government. PetroChina’s corporate social responsibility agenda has been growing. In 2007 the company published a corporate responsibility report detailing its active participation in social welfare initiatives with focus on poverty alleviation, educational promotion, disaster relief and environmental protection.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td>3</td>
<td>Operates in China and abroad in 12 countries including Kazakhstan, Peru, Venezuela, and Indonesia. Formed international joint venture entity with CNODC (Central Asia Petroleum Company Ltd) and CNPC E&amp;D) into which overseas assets owned by CNODC were transferred. PetroChina does not have sole access to Chinese resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006</td>
<td>3</td>
<td>In China the company owns 9,620 kilometers of crude oil pipelines with an average daily throughput of approximately 2.50 million barrels; crude oil storage facilities with an aggregate storage capacity of approximately 17.2 million cubic meters; 2,413 kilometers of refined product pipelines with an average daily throughput of approximately 37,000 tons; refined product storage facilities with a total storage capacity of approximately 18.7 million cubic meters.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006</td>
<td>3</td>
<td>The company owns 26 refineries, 22 regional sales and distribution branch companies and one lubricants branch company. These operations include the refining, transportation, storage and marketing of crude oil, and the wholesale, retail and export of refined products, including gasoline, diesel, kerosene and lubricants.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>3</td>
<td>The company is China’s largest natural gas producer (Sichuan is the largest gas region).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
<td>3</td>
<td>The company is the largest natural gas transporter and seller. 19,662 km of pipelines (95% of China's total capacity). Developed and operates West to East pipeline. No LNG developments.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>3</td>
<td>The company owns 12 chemical plants and four chemical products sales companies. Produces and markets basic petrochemical products, derivative petrochemical products, and other chemical products.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>na</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>168%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$6.37</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>196%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$10.67</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$5.11</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$27.85</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$18.82</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>32%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>198%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td></td>
<td>35%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>87%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($/M/barrel)</td>
<td></td>
<td></td>
<td>($0.00)</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td></td>
<td>-15%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td></td>
<td></td>
<td>147%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td></td>
<td></td>
<td>39%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td></td>
<td>39%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td></td>
<td>147%</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td></td>
<td></td>
<td>26%</td>
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<td>Indicator Description</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>28%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2000</td>
<td>6</td>
<td>From the PetroChina IPO, PRC Government views oil &amp; gas as strategic resources and has designated oil &amp; gas industry as one of country's &quot;pillar industries&quot;.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2000, 2004, 2006, 2007</td>
<td>6, 3, 7, 8</td>
<td>From all sources, with IPO launched PetroChina's operations became commercially focused. In addition, government authority and oversight role (such as budget approvals, environmental oversight and so on) appears to be clearly defined. From Arruda: process of separating energy production and distribution from government administration began in 1982; a distinct goal was greater competitiveness as China entered WTO.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007, Current</td>
<td>5, 7</td>
<td>Both the PetroChina website and corporate social responsibility report provide clear objectives that parallel apparent PRC intentions: focus on core businesses within established values. CSR report states: &quot;We will pursue scientific development, implement the three strategies for resources, market and internationalization, and focus on the transformation of business growth models, the enhancement of independent innovative capabilities, the establishment of a long-acting mechanism of work safety, environmental protection and energy-saving, ultimately creating a harmonious enterprise&quot;.</td>
</tr>
<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2000</td>
<td>6</td>
<td>As apparent from the IPO, strategy was for PRC agencies and, to some extent, CNPC to absorb obligations with various funding streams for coverage. IPO included this risk factor: &quot;CNPC's resources may not be adequate to allow the Company to collect all recoverable losses&quot;.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2000</td>
<td>6</td>
<td>Petroleum revenues received by the government are not segregated from other sources of revenue, and are managed in accordance with the country’s public finance management procedures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Current, Current, Current, 2007</td>
<td>9, 11, 12, 13</td>
<td>China scores in the 50th percentile on WGI. China is not among the candidate countries for EITI. Neither CNPC nor PetroChina are supporting companies. National Democratic Institute maintains several projects in China to encourage more open and accountable governance. Transparency International has an office at Tsinghua University in Beijing. Main transparency issues for China NOCs are related to outbound investment in sensitive countries/regions. Revenue Watch does not have projects in China, but does so in many countries where PetroChina operates.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>All company reports</td>
<td>PetroChina mainly funds capital expenditure from operating profit. Borrowings are a small percentage of capital employed (approx. 5%). Recent annual reports note that a drop in price of crude oil would cause delays or reductions in scale of investments. Effective tax rate is relatively low, but PetroChina pays 10% of net income in dividends to PRC statutory fund and 40-50% of net income in dividends to shareholders (mainly CNPC, for services and also social obligations that CNPC bears on behalf of PetroChina).</td>
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</tr>
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### China: PetroChina

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<thead>
<tr>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>All years</td>
<td>All company reports</td>
<td>Yes - Fitch A+</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>All years, 2006</td>
<td>All company reports, 4</td>
<td>USEIA notes that Chinese NOCs are focused on meeting domestic demand. Foreign companies have been contracted to undertake oil exploration and production activities in China but &quot;China’s national oil companies are entitled to take a majority (51 percent) stake in any commercial discovery, although they can choose to take a minority stake&quot;. NOCs can take over field operations once development costs are recovered. Offshore, CNOOC reserves the right to take over operations with certain shallow water locations in the Bohai Bay exempt. &quot;The Chinese government typically mandates a royalty fee of 12.5 percent for foreign companies&quot; with lower rates in remote areas. Recent activity from industry reports suggests that fiscal regimes, in particular ownership requirements, may discourage inbound capex given difficult geology and remoteness of some locations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2004</td>
<td>8</td>
<td>In the oil and gas sector, the PRC Exploitation of Offshore Oil Resources in Cooperation with Foreign Parties Regulations (1982) and the PRC Exploitation of Onshore Oil Resources in Cooperation with Foreign Parties Regulations (1993) were enacted, along with various other regulations and measures governing royalties and imports.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2006</td>
<td>4</td>
<td>Several PSAs exist in the country (also based on industry news monitoring). Both NOCs and IOCs must compete for and obtain licenses from Ministry of Land and Resources. Inbound investors must comply with ownership rules and participation as already noted.</td>
</tr>
<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>All years</td>
<td>All sources</td>
<td>PetroChina does not appear to participate in any joint ventures for domestic operations. For outbound investment, PetroChina has various joint ventures and both active and passive positions in oil and gas activities as already noted.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>All years</td>
<td>All sources</td>
<td>PetroChina utilizes turnkey contracts with both Chinese and international vendors for all activities and operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>All years</td>
<td>All sources</td>
<td>PetroChina is both vertically and horizontally integrated in its core businesses.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>All years</td>
<td>All sources</td>
<td>Yes, upstream only.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>-2%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2006</td>
<td>4</td>
<td>Yes, but limited according to hydrocarbon sector rules as noted above.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2004, 2006</td>
<td>4, 8</td>
<td>Principal competitors in China are Sinopec, including its subsidiary China National Star Petroleum Corporation, or CNSPC, and China National Offshore Oil Corporation, or CNOOC. IOCs are required to include Chinese NOCs as partner; CNOOC appears to be the main participant in these joint ventures. Foreign participation is regulated by Ministry of Foreign Economic Trade and Cooperation (MOFTEC) and Ministry of Commerce (MOFCOM).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006</td>
<td>4</td>
<td>Dominated by Chinese NOCs. PetroChina has a joint venture with Kuwait for refining. IOCs and other NOCs (mainly from Middle Eastern producing/exporting countries) are the primary partners. With respect to natural gas, USEIA notes that, &quot;One major hurdle for natural gas projects in China is the lack of a unified regulatory system. Currently, natural gas prices are governed by a patchwork of local regulations. The Chinese government is in the process of drafting a new legal framework for the natural gas sector, but the process has been slow, and there are still considerable uncertainties regarding price regulation and taxation issues dealing with natural gas sales&quot;.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>All years</td>
<td>All sources</td>
<td>Given the regulatory framework, it appears that investor interest has been primarily in upstream activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2006</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>All years</td>
<td>All sources</td>
<td>PetroChina's international oil &amp; gas production is only 5% of total, and has been declining (2004-2006). Appears that international operations are not a significant contributor to performance, either because of quality and/or location, and that PetroChina may have difficulty sustaining them.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>All years</td>
<td>All sources</td>
<td>From all sources, PetroChina appears to focus strongly on its core businesses and does not direct capex outside of E&amp;P, refining &amp; marketing and related midstream infrastructure. In addition, budget approval process and restrictions on investments outside of oil and gas activities constrain diversification outside of core operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>All years</td>
<td>All sources</td>
<td>Numerous agencies have oversight for oil &amp; gas operations including midstream and downstream. Details on agencies are not known.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers</td>
<td>All years</td>
<td>All sources</td>
<td>Yes, but with some qualifications (mainly related to the role of CNPC; constraints on budget autonomy, administrative price imposed on domestic sales of products; lack of regulatory framework for natural gas; etc).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2007</td>
<td>13</td>
<td>China scores in the 50th percentile (approx avg for all years in survey) on WGI for government effectiveness, regulatory quality, rule of law. Details on hydrocarbon agencies are not known.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>All years</td>
<td>All sources</td>
<td>The PRC government is in the process of addressing internal and external concerns on the operations of the NOCs with particular emphasis on environmental, health and safety and human rights issues. PetroChina corporate social responsibility report details the company’s intent with respect to the conduct of operations both China and abroad. Disputes and/or dispute resolution process are not reported.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. Brief description of subsidy program, approach, cost</td>
<td>2007</td>
<td>14</td>
<td>Since 2006 PetroChina has been subject to a crude oil special gain levy; payments totaled US$10 billion for 2006 and 2007. However, PetroChina also receives paybacks from the windfall profits levy for the spread between cost of crude for refining and the administered prices for domestic sales of petroleum products. Petroleum products are subject to price controls in China. This policy has translated into refining and marketing losses for PetroChina. “In 2006 PetroChina paid a crude oil special gain levy of RMB 28.9 billion (US$3.6 billion) imposed by the Chinese government on domestic crude oil sold at or above US$40/barrel. PetroChina sells refined products in the domestic market at prices administered by the National Development and Reform Commission. The company incurred average annual refining losses 2004-2006 of US $1.5 billion due primarily to the fact that the price increase of crude oil exceeded that of refined oil products in China.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2007</td>
<td>7</td>
<td>Since the company’s IPO, all social and economic programs are funded by the PRC government. However, PetroChina supports a number of social and cultural programs, and a major commitment was made to the 2008 Olympics, for both energy fuels and emissions reductions to improve air quality for the venues.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$215.05</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$8.64</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
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<td></td>
<td>$154.19</td>
</tr>
<tr>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>All years</td>
<td>All sources</td>
<td>PetroChina provides extensive data and information in all of its reports. Information on specific hydrocarbon sector regulation and oversight roles does not appear to be readily accessible.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>All years</td>
<td>All sources</td>
<td>China reorganized its hydrocarbon sector several times in recent years. The launch of PetroChina's IPO in 2000 established a basis for independent operations. China may take further steps towards privatization by offering additional equity in PetroChina to the public.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>All years</td>
<td>All sources</td>
<td>China became a net importer of oil in the late 1990s. China energy policy and energy security considerations have guided the reorganization of the sector and inform the strategies of the NOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>436,585</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td></td>
<td>3,742</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
<td>15.08</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>-6.32%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>-2.59%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>15,493.40</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td></td>
<td>66,541.71</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>26,966.11</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>60%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>96%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>61.77%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>35%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>57.46%</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.97%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>51.76%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>4</td>
<td>2006</td>
<td>USEIA China country analysis brief</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/China/Oil.html">http://www.eia.doe.gov/emeu/cabs/China/Oil.html</a></td>
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<td>10</td>
<td>Current</td>
<td>Transparency International, Tsinghua University, Beijing</td>
<td><a href="http://www.transparency.org/content/view/full/252/(filter)/c">http://www.transparency.org/content/view/full/252/(filter)/c</a></td>
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</tbody>
</table>
## Corporate Governance Highlights

**Corporate Organization and Ownership**

Sinopec is a joint stock company incorporated in the PRC. It is a subsidiary of Sinopec Group Company (SGC).

**Shares Controlled by Government**

The government owns 100% of SGC share capital, who owns 75.84% of Sinopec. 23.49% of the share capital is traded on 4 stock exchanges, while the residual 0.67% is owned by a state-owned security entity.

**Domestic, International Exchanges for Equity Listings**

Sinopec is listed on the Hong Kong Stock Exchange, New York Stock Exchange, London Stock Exchange, and Shanghai Stock Exchange.

**Board of Directors Structure**

There are eleven BOD members of which 3 are independent. They are elected by the shareholders at a general meeting for a three year term and they can be re-elected for two terms only.

**Independent Board Members**

There are three independent directors elected by shareholders.

**Is chairman also minister of energy or otherwise appointed by head of state?**

The BOD Chairman is the President of Sinopec Group Company which is 100% government owned.

## Operations Highlights

**Upstream Oil**

Sinopec operates primarily onshore China and for the 3 years ended 2006 its oil and gas production accounted for 20% of China's total production. International upstream assets appear to reside in SGC as Sinopec does not report international assets in its Forms 20Fs. At the end of 2006 SGC held upstream assets in Russia, Iran and Canada.

**Midstream Oil**

Sinopec is actively expanding its pipeline network. The first phase of a 600 mile project with final capacity of 540,000 B/D began operation in 2006.

**Downstream Oil**

Sinopec is China's largest refiner with 3.5 million B/D of primary distillation capacity at the end of 2006. The company is actively building new refineries and upgrading existing plants to process heavier Middle Eastern crudes. Refinery throughput grew 10% from 2004 to 2006. 20% of its crude supply comes from its own production; the remainder is imported. Refinery product prices are subsidized in China and Sinopec reported a $3 billion loss in this segment in 2006. The company owns and franchises about 29,000 retail service stations. Service station supplies came 90% from Sinopec in 2006. Since 2005 wholly owned foreign companies are permitted to conduct oil retail operations. Sinopec does not mention partners outside of franchises.

**Upstream Natural Gas**

Sinopec operates primarily onshore China and for the 3 years ended 2006 its oil and gas production accounted for 20% of China's total production. International upstream assets appear to reside in SGC as Sinopec does not report international assets in its Forms 20Fs. SGC upstream assets are in Russia, Iran and Canada.

**Midstream Natural Gas**

Sinopec is studying options for the construction of a cross-country natural gas pipeline.

**Downstream Natural Gas**

Sinopec had 38 million tons of petrochemical capacity at the end of 2006. Throughput is high at 95% of capacity and the company has expanded both capacity and throughput about 20% from 2004 to 2006. 100% of petrochemical feedstock comes from Sinopec production. Unlike refining, this segment is profitable with income from operations averaging about $2 billion p.a. from 2004 through 2006.

**Other**

None.
Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>2004-2007 Data</th>
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<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>3,285</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>2,947</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>279</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>229</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>876</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>2004-2007 Data</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>103,314</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>66,116</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>11,375</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>5,807</td>
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Categorization Indi

<table>
<thead>
<tr>
<th>Category</th>
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<td>Corporate Governance</td>
<td>69</td>
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<td>Public Sector Governance</td>
<td>64</td>
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<tr>
<td>Commercialization</td>
<td>83</td>
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<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
<td>5</td>
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<tr>
<td>Oil Dependency</td>
<td>97</td>
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<tr>
<td>Local Contribution</td>
<td>88</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>58</td>
</tr>
<tr>
<td>Average</td>
<td>66</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

In the first quarter of 2008 Sinopec continued to report decreased earnings due to refining losses attributed to the existence of price subsidies. This is expected to be a continuing issue for the company when oil prices are above $90/bbl if product prices are not liberalized.
### China: China Petroleum & Chemical Corporation (Sinopec)

#### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>3</td>
<td>Sinopec is one of three NOCs operating in the PRC. The other two NOCs are CNPC and Sinopec. Sinopec and CNPC have the exclusive rights to explore and produce oil and gas onshore.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>3</td>
<td>3 - CNPC (China national Petroleum Corp of which PetroChina is a subsidiary), Sinopec (China Petroleum and Chemical Corporation, CNOOC (China national Offshore Oil Company)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1</td>
<td>China Petroleum &amp; Chemical Corp. (Sinopec) is a joint stock company incorporated in the PRC. It is a subsidiary of Sinopec Group Company (SGC), wholly owned by the government. SGC owns 75.84% of Sinopec. 23.49% of the share capital is traded on 4 stock exchanges, while the residual 0.67% is owned by a state-owned security entity.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
<td>1</td>
<td>76.51 %</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
<td>1</td>
<td>Sinopec is listed on the Hong Kong Stock Exchange, the New York Stock Exchange, the London Stock Exchange, and Shanghai.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006</td>
<td>1</td>
<td>Sinopec is listed on the Hong Kong Stock Exchange, the New York Stock Exchange, the London Stock Exchange, and Shanghai.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006 2007</td>
<td>1 4</td>
<td>There are eleven BOD members of which 3 are independent non-executive directors. They are elected by the shareholders for a three year term and they can be re-elected for two terms only. The BOD is overseen by a Board of Supervisors which has 12 members: 8 elected by the shareholder and 4 from the company. The Supervisors monitor the performance of executive management, the BOD and oversee financial reporting.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>1</td>
<td>The BOD Chairman is the President of Sinopec Group Company which is 100% government owned.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>1</td>
<td>There are three independent directors. All directors are elected by the general meeting of shareholders.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>1</td>
<td>See BOD Structure above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2006</td>
<td>1</td>
<td>Elect corporate officers/executive management; Review operating/financial performance; Approve financial statements; Appoint independent auditors; Approve debt issuance; Declare dividends; Approve registration of securities; Evaluate management performance/set compensation levels; Monitor code of ethics/business conduct policies compliance; BOD recruits/selects key executives.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2006</td>
<td>1</td>
<td>BOD has considerable authority, and the majority shareholder has considerable influence on the BOD through its chairman and through the selection of BOD members.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2006</td>
<td>1</td>
<td>Undisclosed.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2006</td>
<td>1</td>
<td>Sinopec prepares the capital budget annually. The Ministry of Commerce and the National Reform and Development Commission must approve sizeable downstream projects as</td>
</tr>
<tr>
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<td>Year of Source of Data</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>2006</td>
<td>1</td>
<td>The budget is a predictable annual process. Government entities participate at various stages of budget preparation and/or approval (see above). The budget process is separate from the national budget process.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>2006, 2007</td>
<td>1, 3, 4</td>
<td>Sinopec has the authority to partner with other entities both upstream and downstream but appears to do it much less than the other Chinese NOCs. It has a joint venture with ExxonMobil and Saudi Aramco at its Fujian refinery and ethylene complex.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>2008</td>
<td>4</td>
<td>Optimize exploration, production and development plans; meet domestic demand for refined products and expand as necessary; expand retail oil products business and strengthen management; expand markets for chemical products, achieve overall cost reductions of 2.6 million RMB.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>2006</td>
<td>1</td>
<td>Historically the company has had sufficient cash flow from operations to fund its investment portfolio and has reported oil and gas production increases and increases in refinery capacity, throughput and production.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>2006</td>
<td>1</td>
<td>In 2006 the financial auditor was KPMG; reserves are unaudited.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>2006</td>
<td>1</td>
<td>In 2006 33% of employees were involved in exploration and production activities; 42% were in refining and marketing; 23% were in chemicals and 2% were in corporate/other. There is a union but the company has not had strikes or other labor disturbances.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>2008</td>
<td>4</td>
<td>The Remuneration and Performance Review Committee of the BOD is responsible for researching and suggesting remuneration policies for directors and senior management. Recruitment, training and development activities are outlined in the company’s website. The HR department is part of the...</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
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<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>2008</td>
<td>4</td>
<td>On its web site Sinopec provides quantitative data on its poverty relief and health contributions. These are also outlined in the Sustainability Report (first issued in 2007).</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>2008, 2006</td>
<td>1, 4</td>
<td>Sinopec provides funding for health and poverty alleviation projects. It also provides significant price subsidies for refined products.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1</td>
<td>Sinopec operates primarily onshore China and for the 3 years ended 2006 its oil and gas production accounted for 20% of China's total production. International upstream assets appear to reside in SGC as Sinopec does not report international assets in its Forms 20Fs. SGC upstream assets are in Russia, Iran and Canada.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1, 3</td>
<td>Sinopec is actively expanding its pipeline network. The first phase of a 600 mile project with final capacity of 540,000 B/D began operation in 2006.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2006</td>
<td>1, 3</td>
<td>Sinopec is China's largest refiner with 3.5 million B/D of primary distillation capacity at the end of 2006. The company is actively building new refineries and upgrading existing plants to process heavier Middle Eastern crudes. Refinery throughput grew 10% from 2004 to 2006. 20% of its crude supply comes from its own production; the remainder is imported. Refinery product prices are subsidized in China and Sinopec reported a $3 billion loss in this segment in 2006. The company owns and franchises about 29,000 retail service stations. Service station supplies came 90% from Sinopec in 2006. Since 2005 wholly owned foreign companies re permitted to conduct oil retail operations. Sinopec does not mention</td>
<td></td>
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<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>Sinopec operates primarily onshore China and for the 3 years ended 2006 its oil and gas production accounted for 20% of China's total production. International upstream assets appear to reside in SGC as Sinopec does not report international assets in its Forms 20Fs. SGC upstream assets are in Russia, Iran and Canada.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
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<td>Sinopec is studying options for the construction of a cross-country natural gas pipeline.</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>Sinopec had 38 million tons of petrochemical capacity at the end of 2006. At the end of 2006 throughput remained high (95%) although the company had increased both throughput and capacity by approximately 20% from 2004 to 2006. 100% of petrochemical feedstock comes from Sinopec production. Unlike refining, this segment is reported as profitable with income from operations averaging about $2 billion p.a. from 2004 through 2006.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
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<td>105%</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
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<td>$12.85</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>0%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<td>6%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
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<td>142%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
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<td>$13.48</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$8.15</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>37%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$23.55</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$14.59</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>38%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>142%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td></td>
<td>28%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>85%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td></td>
<td>($0.00)</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td></td>
<td>-3%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td></td>
<td>104%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td>104%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td></td>
<td>30%</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>6</td>
<td>In December 2007 the PRC published an overall energy policy. With respect to hydrocarbons, exploration and production will focus on domestic areas. Coal-bed methane gas, oil shale and tar sands are targeted. Improvement of the oil and gas pipeline system is emphasized. Improvement of the legal system for hydrocarbon development in China and the establishment of appropriate pricing mechanisms are imperatives. Measures in this direction are in process. The PRC aims to increase foreign participation in the upstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2006</td>
<td>1</td>
<td>The commercial function is clearly separated from policy and regulatory functions. The latter two are combined in overlapping entities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>4</td>
<td>Optimize exploration, production and development plans; meet domestic demand for refined products and expand as necessary; expand retail oil products business and strengthen management; expand markets for chemical products, achieve overall cost reductions of 2.6 million RMB.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2006, 2008</td>
<td>1, 8</td>
<td>When Sinopec was partially privatized, the government assumed pension liabilities for current, laid off and retired workers. Sinopec's only pension obligation is to make an annual contribution to the relevant government entity which is expensed annually. The government is trying to slowly raise prices on refined products and ease Sinopec's price subsidies but this may take time. In 2008 the government gave Sinopec $1.7 billion to compensate for losses on refining following smaller payments in 2005 and 2006. (PetroChina did not receive government compensation as its larger exploration and production activities were deemed sufficient to offset refining losses).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2000</td>
<td>9</td>
<td>Petroleum revenues received by the government are not segregated from other sources of revenue, and are managed in accordance with the country’s public finance management procedures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>7</td>
<td>Not participating.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2006, 2007</td>
<td>1, 3, 6</td>
<td>Historically the three Chinese NOC's have been able to fund capital expenditures from operating cash flow. With respect to non-NOC participants, interest is centered on the upstream offshore due to the maturity of onshore resources and the unattractive refined products pricing schemes. The PRC aims to expand foreign participation in the hydrocarbon sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>All three Chinese NOCs have investment grade ratings. Sinopec is at the &quot;A&quot; level.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are</td>
<td>2006</td>
<td>1, 3</td>
<td>USEIA notes that Chinese NOCs are focused on meeting</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td></td>
<td>Hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td></td>
<td>domestic demand. &quot;Many foreign companies have been contracted to undertake oil exploration and production activities in China. According to Chinese law, however, China’s national oil companies are entitled to take stakes up to 51% in any commercial discovery. (up to 30% in certain deepwater blocks offered in specific bid rounds). The national oil companies have the option to take over field operations (i.e. become the operators) once the PSAs contractors have recovered their development costs. In offshore zones, CNOOC reserves the right to take over operations at any new discoveries, although certain shallow water locations such as the Zhao Dong field in the Bohai Bay are exempt. The Chinese government typically mandates a royalty fee of 12.5 percent for foreign companies involved in the oil sector, although incentives have been offered for development and exploration in more remote onshore areas, such as the western provinces of Qinghai and Xinjiang&quot;. Recent activity from industry reports suggests that fiscal regimes, in particular ownership requirements, may discourage inbound capex given difficult geology and remoteness of some locations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2004</td>
<td>5</td>
<td>In the oil and gas sector, the PRC Exploitation of Offshore Oil Resources in Cooperation with Foreign Parties Regulations (1982) and the PRC Exploitation of Onshore Oil Resources in Cooperation with Foreign Parties Regulations (1993) were enacted, along with various other regulations and measures governing royalties and imports.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2006</td>
<td>1, 3</td>
<td>PSAs are permitted onshore but Sinopec does not disclose any.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>1, 3</td>
<td>Sinopec associates with other oil companies through the use of production sharing contracts for upstream operations. Sinopec has two joint ventures (Exxon and Saudi Aramco) in refining.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>Sinopec is a fully integrated company and the PRC's largest refiner.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No. Its parent company appears to do that.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2006</td>
<td>1, 3</td>
<td>Numerous particularly offshore.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006</td>
<td>1, 3</td>
<td>Non-NOC participants required to negotiate PSAs with three Chinese NOCs. Chinese NOCs have the right to &quot;back-in&quot;, without paying exploration costs, into any commercial discovery. Until 2006 the percentage back-in was up to 51% (up to 30% in certain deepwater blocks offered in specific bid rounds).</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006</td>
<td>3</td>
<td>Dominated by Chinese NOCs. Sinopec has a joint venture with ExxonMobil and Saudi Aramco for refining. IOCs and other NOCs (mainly from Middle Eastern producing/exporting countries) are the primary partners. With respect to natural gas, USEIA notes that, &quot;One major hurdle for natural gas projects in China is the lack of a unified regulatory system. Currently, natural gas prices are governed by a patchwork of local regulations. The Chinese government is in the process of drafting a new legal framework for the natural gas sector, but the process has been slow, and there are still considerable uncertainties regarding price regulation and taxation issues dealing with natural gas sales&quot;.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
<td>4</td>
<td>None reported by Sinopec outside of Fujian refinery.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2006</td>
<td>1</td>
<td>Non-government shareholders own 24% of Sinopec</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006</td>
<td>1</td>
<td>No international operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2006</td>
<td>1</td>
<td>The regulatory functions reside in several ministries.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2006</td>
<td>1</td>
<td>In the upstream, only partially. Sinopec's 51% &quot;back-in&quot; right would not exist in competitive markets. Price subsidies for refined products would not exist in competitive markets.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2006, 2007</td>
<td>1, 6</td>
<td>The regulatory functions reside in several ministries. Data provision has improved and further improvement efforts are continuing.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2006, 2007</td>
<td>1</td>
<td>No data available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>1</td>
<td>Sinopec reported refining losses of $3 billion in 2006.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2006</td>
<td>4</td>
<td>Disclosure on company website.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$181.16</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$6.42</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$283.09</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1, 6</td>
<td>Good with respect to NOC SEC Form 20Fs. Country data is improving.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Sinopec was incorporated in 2000 and its principal businesses were transferred to it by Sinopec Group Company pursuant to a reorganization agreement.</td>
</tr>
</tbody>
</table>
## China: China Petroleum & Chemical Corporation (Sinopec)

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
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<tbody>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>In the first quarter of 2008 Sinopec continued to report decreased earnings due to refining losses attributed to the existence of price subsidies. This is expected to be a continuing issue for the company when oil prices are above $90/bbl if product prices are not liberalized. Unless efforts are made to rationalize petroleum product pricing in China, the company's cash position will likely erode ultimately impacting its investment plans.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>364,955</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>3,274</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>15.08</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>-6.32%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>-2.59%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>15,493.40</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>66,541.71</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>26,966.11</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Audited in part through two NOCs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>48%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>57.46%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.97%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>51.76%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
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## Sources of Information

<table>
<thead>
<tr>
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<th>Year of Source</th>
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<tr>
<td>7</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
</tr>
<tr>
<td>8</td>
<td>2008</td>
<td>&quot;$18 billion cost of high price crude,&quot; Financial Times, 3/20/08.</td>
<td></td>
</tr>
</tbody>
</table>
### Corporate Governance Highlights

#### Corporate Organization and Ownership
PT Pertamina (Persero) is a limited liability company established in Indonesia.

#### Shares Controlled by Government
The Indonesian government owns 100% of Pertamina. The Ministry of State Owned Enterprises is the shareholder.

#### Domestic, International Exchanges for Equity Listings
None. In January 2008 the Ministry of State Owned Enterprises determined to establish Pertamina as a non-listed public company in 2008 which had not occurred as of November 2008.

#### Board of Directors Structure
The BOD has six members which are appointed by the President of Indonesia. The President-Director of Pertamina is also appointed by the President. There is also a state Board of Commissioners which monitors the performance of the BOD and Pertamina. The Chief Commissioner is appointed by the President.

#### Independent Board Members
None

Is chairman also minister of energy or otherwise appointed by head of state?
The Indonesian President appoints all members of the BOD.

### Operations Highlights

#### Upstream Oil
In 2004 Pertamina reported 1.5 million barrels of proven oil reserves and 133 MB/D of oil production, representing 35% and 12% of Indonesia's reserves and production respectively. The oil upstream sector is dominated by international oil companies (Chevron, BP, ConocoPhillips, ExxonMobil, Total, PetroChina and CNOOC) operating pursuant to production sharing contracts (PSAs). Indonesia's two largest oil fields, operated by Chevron, are in decline. The upstream regulator, BP Migas, has competitively tendered new upstream projects annually since 2001. In the 2006 tender the majority of awards went to smaller Indonesian firms. In 2004 Indonesia became a net oil importer. BP Migas was established in 2002 as the upstream supervisor and replaced Pertamina as the contracting party in PSAs.

#### Midstream Oil
Indonesia has 7,471 kilometers of oil pipelines and 1,365 kilometers of refined product pipelines. BPH Migas, established in 2002, is the regulator/supervisor of oil and refined products transportation and storage.

#### Downstream Oil
Pertamina operates all eight of Indonesia's refineries with capacity of 992,745 B/D. Pertamina reported refinery production of 282 MM barrels in 2004 suggesting a refinery utilization rate of 78%. Under the Law Oil of 2001 Pertamina was permitted to retain the operating rights for all its existing downstream businesses. However third parties are permitted to participate in new construction, upgrades and expansions. Indonesia's first privately owned (local firm) refinery with capacity of 300,000 B/D is under construction and should be completed in 2010. In 2004 Pertamina sold 573 MM barrels of refined products with 91% destined for domestic markets. Refinery product imports accounted for 22% of sales. Third parties are permitted to participate in marketing and distribution and BP and Petronas entered this segment in 2004. BP Migas is the regulator/supervisor of refining, distribution and marketing of oil and oil products. It is the licensing agency and determines prices for subsidized fuels.

#### Upstream Natural Gas
Pertamina reported 19 TCF of proven gas reserves and 1.1 BCF/D of gas production in 2004 accounting for 19% and 16% of Indonesian reserves and production respectively. 70% of the country's gas reserves are offshore. Pertamina and six international oil companies (Total, ExxonMobil, BP/ENI, ConocoPhillips, BP and Chevron) operating under production sharing contracts account for more than 90% of production. As in the upstream oil sector, BP Migas is the upstream gas supervisor/regulator and licensing authority and replaces Pertamina as the contracting party in PSAs. Indonesia is trying to shift natural gas production to domestic markets to replace crude oil. Pertamina and Indonesia are emphasizing natural gas exploration to satisfy increasing domestic demand and meet its LNG contract obligations. Pertamina and Indonesian gas production increased from 2003 to 2004.
Midstream Natural Gas
Pertamina is not involved in this sector. Gas transmission is under the purview of state-owned Perusahaan Gas Negara (PGN). It operates more than 3,100 miles of gas transmission and distribution lines. Limited interconnectivity has restrained growth in domestic consumption. PGN is building new pipelines to improve connectivity (Integrated Gas Transportation System) which is being financed by PGN, the World Bank and the Asian Development Bank. BP Migas is the regulator/supervisor of this sector with respect to development, tariffs and capacity allocation.

Downstream Natural Gas
Indonesia has the capacity to produce 31.6 million tons of LNG at the two liquefaction plants in Arun and Bontang. Pertamina has a 55% interest in Bontang and a 55% interest in Arun. In 2004 LNG production was 25.1 million tons or 80% of capacity. Declining LNG exports are due to declining production and diversion of gas production for domestic use, particularly fertilizer plants. In December 2005 it was decided that 25% of production from all future gas discoveries should go to the domestic market. With recent refined product subsidy cuts, gas is the more attractive fuel for power and the industrial sector. Since domestic gas prices are not near the level of the feed gas to the LNG plants and the domestic pipeline system needs significant expansion, this policy is creating great uncertainty in the economics of developing known and new gas fields. PSA operators are reluctant to further develop existing gas fields and there are sharp production declines in the fields feeding the two LNG plants. As a result Indonesia is failing to meet its contractual LNG export commitments, particularly to Japan. The Japanese are turning to other LNG sources as many contracts with Indonesia come up for renewal in 2009. Decreased exports will adversely affect the country's trade balance. The Indonesian government approved a new BP-led LNG project at Tangguh in March 2005; Pertamina is not a participant.

Other
In 2004 Pertamina produced 137.09 Mtons/day of geothermal energy. Pertamina has been the seller of the government's share of oil and gas production in Japan, the Philippines and Taiwan and domestically. BP Migas selects the gas seller. Pertamina's president was quoted as saying "We are hopeless" at marketing Indonesia's LNG. BP Migas appointed BP to market the government's share of LNG from the new Tangguh LNG project.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td>1,210</td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
<td>13,495</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
<td>357</td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
<td>280</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues</td>
<td>No data</td>
</tr>
<tr>
<td>(SMillions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Total Assets</td>
<td>No data</td>
</tr>
<tr>
<td>(SMillions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average EBIT</td>
<td>No data</td>
</tr>
<tr>
<td>(SMillions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Net Income</td>
<td>No data</td>
</tr>
<tr>
<td>(SMillions)</td>
<td></td>
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Categorization Indicators

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>47</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>83</td>
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<tr>
<td>Commercialization</td>
<td>50</td>
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<tr>
<td>Fiscal Regimes</td>
<td>38</td>
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<tr>
<td>Resource Endowment</td>
<td>4</td>
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<tr>
<td>Oil Dependency</td>
<td>99</td>
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<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>56</td>
</tr>
<tr>
<td>Average</td>
<td>53</td>
</tr>
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</table>
Pertamina has been undergoing a substantial transformation since 2003 to ready it to become "a non-listed public company" in 2008/2009. Non-core businesses such as airlines and hospitals are being divested; the workforce has been reduced; regulatory duties have been transferred to government agencies; price subsidies are being reduced and all sectors of the hydrocarbon industry are open to competition. The company appointed Ernst and Young as auditors for 2007 and will have a reputable independent firm prepare a reserve report. McKinsey & Co. was hired to improve corporate governance and PricewaterhouseCoopers was hired to organize non-core businesses for divestment. Pertamina is a "work in progress" and it will take some time to determine results. Similarly, Indonesia's commercial frameworks for the hydrocarbon sector have undergone major changes in 2001 (new Oil Law) and 2007 (new national Energy Law) and are in the process of evolving.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
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<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2005</td>
<td>1,2,6</td>
<td>PT Pertamina (Persero) is a limited liability company incorporated in Indonesia in 2003. There is another state-owned company, PGN (PT Perusahaan Gas Negara Tbk) which owns and operates gas transmission and distribution pipelines.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2005</td>
<td>1, 2, 6</td>
<td>2</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2004</td>
<td>1</td>
<td>Pertamina is a limited liability company established in Indonesia and is 100% government owned.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2004</td>
<td>1</td>
<td>The Indonesian government owns 100% of Pertamina. The Ministry of State Owned Enterprises is the shareholder.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>1</td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>1</td>
<td>The BOD has six members which are appointed by the President of Indonesia. The President-Director of Pertamina is also appointed by the President. There is also a state Board of Commissioners which monitors the performance of the BOD and Pertamina. The Chief Commissioner is appointed by the President.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>1</td>
<td>The Indonesian President appoints all members of the BOD.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>1</td>
<td>There are no independent board members.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2005, 2008</td>
<td>6, 1</td>
<td>The role of the BOD is largely unknown. The BOD and BOC approved Pertamina's corporate plan and budget for 2008 &quot;after tight review and discussion&quot; which will be subject to &quot;regular review.&quot; The shareholder directed the BOD and BOC to prepare Pertamina as a non-listed public company in 2008 and appointed Ernst and Young as auditor for 2007. At the annual meeting of the shareholder, BOD and BOC in January 2008 it was decided to have Pertamina's reserves audited by a &quot;reputable independent consultant.&quot; Company goals for 2008 were proposed by the BOD and BOC and were approved by the shareholder. It is said that the Minister of Energy and President retain a considerable influence on the appointment of directors and commissioners which they could use to shape Pertamina in accordance with the government's national vision for the oil and gas industry.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2005</td>
<td>6</td>
<td>See above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2008</td>
<td>1</td>
<td>Presidential prerogative. See BOD Structure above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2005, 2006</td>
<td>6, 1</td>
<td>Pertamina appears to have an annual budget process which is reviewed and approved by the BOD, BOC and shareholder. Also present at that meeting in January 2008 were the Deputy and Asst. Deputy of Mining, Strategic Industry, Energy and Telecommunication.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>Appears to be predictable. No data if separate from national budget.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2005</td>
<td>6</td>
<td>Pertamina is party to 64 exploration and production PSAs and is a party to various joint venture agreements and technical assistance contracts. It has formed strategic alliances with domestic and foreign partners and has set up a drilling service called Pertamina Drilling Services which owns 28 drilling rigs. It is a party to eight joint operating agreements for geothermal operations. It also owns two LNG liquefaction facilities in joint ventures with international oil companies. Pertamina dominates the refining sector and does not have partners although it is permitted.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>8</td>
<td>Maintain oil production at 3.1 MMb/D until 2012; 100% reserve replacement ratio by 2012/2013; achieve R/P ratio of 10 years; maintain gas production increases above demand growth; reduce gasoline imports; enact crucial operational upgrades in refining and petrochemicals and reduce investment leverage. In order to meet these goals Pertamina needs: greater flexibility, enhanced execution capacity and sufficient resources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008</td>
<td>1</td>
<td>The shareholder appointed Ernst &amp; Young as the financial auditor for 2007 although financial results are not publicly disclosed. Pertamina is in process of finding a reserves auditor.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data.</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management Based on available information, HR promotion and professional development policies</td>
<td>2,008 1</td>
<td>Pertamina has corporate strategies for human resource development but they are not publicly disclosed on its web site (special authorization required).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008 1</td>
<td>Qualitative disclosure of social/economic contributions on web site under Corporate Social Responsibility. The company envisions dedicating 1-3% of net profit after government take to these efforts. Price subsidies are reimbursed by the government.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives Based on available information, extent of non-commercial obligations</td>
<td>2008 1</td>
<td>See above.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country’s resources?</td>
<td>2006, 2007 1, 2</td>
<td>In 2004 Pertamina reported 1.5 million barrels of proven oil reserves and 133 MB/D of oil production, representing 35% and 12% of Indonesia’s reserves and production respectively. The oil upstream sector is dominated by international oil companies (Chevron, BP, ConocoPhillips, ExxonMobil, Total, PetroChina and CNOOC) operating pursuant to production sharing contracts (PSAs). Indonesia’s two largest oil fields, operated by Chevron, are in decline. The upstream regulator, BP Migas, has competitively tendered new upstream projects annually since 2001. In the 2006 tender the majority of awards went to smaller Indonesian firms. In 2004 Indonesia became a net oil importer. BP Migas was established in 2002 as the upstream supervisor and replaced Pertamina as the contracting party in PSAs.</td>
<td></td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2007, 2008</td>
<td>1, 2</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>2</td>
<td>Indonesia has 7,471 kilometers of oil pipelines and 1,365 kilometers of refined product pipelines. BP Migas, established in 2002, is the regulator/supervisor of oil and refined products transportation and storage.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008, 2007</td>
<td>1, 2</td>
<td>Pertamina operates all eight of Indonesia's refineries with capacity of 992,745 B/D. Pertamina reported refinery production of 282 MM barrels in 2004 suggesting a refinery utilization rate of 78%. Under the Law Oil of 2001 Pertamina was permitted to retain the operating rights for all its existing downstream businesses. However third parties are permitted to participate in new construction, upgrades and expansions. Indonesia's first privately owned (local firm) refinery with capacity of 300,000 B/D is under construction and should be completed in 2010. In 2004 Pertamina sold 573 MM barrels of refined products with 91% destined for domestic markets. Refinery product imports accounted for 22% of sales. Third parties are permitted to participate in marketing and distribution and BP and Petronas entered this segment in 2004. BP Migas is the regulator/supervisor of refining, distribution and marketing of oil and oil products. It is the licensing agency and determines prices for subsidized fuels.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>Pertamina reported 19 TCF of proven gas reserves and 1.1 BCF/D of gas production in 2004 accounting for 19% and 16% of Indonesian reserves and production respectively. 70% of the country's gas reserves are offshore. Pertamina and six international</td>
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<tr>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008, 2007</td>
<td>1, 2</td>
<td>Pertamina is not involved in this sector. Gas transmission is under the purview of state-owned Perusahaan Gas Negara (PGN). It operates more than 3,100 miles of gas transmission and distribution lines. Limited interconnectivity has restrained growth in domestic consumption. PGN is building new pipelines to improve connectivity (Integrated Gas Transportation System) which is being financed by PGN, the World Bank and the Asian Development Bank. BP Migas is the regulator-supervisor of this sector with respect to development, tariffs and capacity allocation.</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>8</td>
<td>Indonesia has the capacity to produce 31.6 million tons of LNG at the two liquefaction plants in Arun and Bontang. Pertamina has a 55% interest in Bontang and a 55% interest in Arun. In 2004 LNG production was 25.1 million tons or 80% of capacity. Declining LNG exports are due to declining production and diversion of gas production for domestic use, particularly fertilizer plants. In December 2005 it was decided that 25% of production from all future gas discoveries should go to the domestic market. With the refined product subsidy cuts, gas is the more attractive fuel for power and the industrial sector. Since domestic gas prices are not near the level of the feed gas to the LNG plants and the domestic pipeline system needs significant expansion, this policy is creating great uncertainty in the economics of developing known and new gas fields. PSA operators are reluctant to further develop existing gas fields and there are sharp production declines in the fields feeding the two LNG plants. As a result Indonesia is failing to meet its contractual LNG export commitments, particularly to Japan. The Japanese are turning to other LNG sources as many contracts with Indonesia come up for renewal in 2009. Decreased exports will adversely affect the country’s trade balance. The Indonesian government approved a new BP-led LNG project at Tangguh in March 2005; Pertamina is not a participant.</td>
</tr>
</tbody>
</table>
### Value Creation Metrics

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2005, 2006, 2007, 2008</td>
<td>1, 2, 6, 8</td>
<td>In 2004 Pertamina produced 137.09 Mtons/day of geothermal energy. Pertamina has been the seller of the government's share of oil and gas production in Japan, the Philippines and Taiwan and domestically. BP Migas selects the gas seller. BP Migas appointed BP to market the government's share of LNG from the new Tangguh LNG project.</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Value Creation Metrics | Operating Performance | Avg reserve replacement rate (BOE, %) | No data |
| Value Creation Metrics | Operating Performance | Avg reserve replacement cost ($/BOE) | No data |
| Value Creation Metrics | Operating Performance | Change in BOE reserves (%) | 108% |
| Value Creation Metrics | Operating Performance | Change in BOE production (%) | 14% |
| Value Creation Metrics | Operating Performance | Avg upstream operating cash flow/upstream capital expenditures (%) | No data |
| Value Creation Metrics | Operating Performance | Avg upstream exploration and production expenses ($/BOE) | No data |
| Value Creation Metrics | Operating Performance | Avg production costs excluding production taxes ($/BOE) | No data |
| Value Creation Metrics | Operating Performance | Avg upstream after-tax income/revenues (%) | No data |
| Value Creation Metrics | Operating Performance | Avg earnings before interest &amp; taxes ($/BOE) | No data |
| Value Creation Metrics | Operating Performance | Avg income after all taxes ($/BOE) | No data |
| Value Creation Metrics | Operating Performance | Avg effective tax rate (%) | No data |
| Value Creation Metrics | Operating Performance | Avg operating cash flow vs costs incurred (%) | No data |
| Value Creation Metrics | Operating Performance | After tax return on assets | No data |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
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<tbody>
<tr>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2005, 2007</td>
<td>6, 9</td>
<td>Although not specifically related to national development objectives, the passage of Oil and Gas Law No. 22/2001 in late 2001 produced a huge change in Indonesia's hydrocarbon sector. This law ended Pertamina’s monopoly, promoted competition and transferred Pertamina’s upstream and downstream regulatory roles to two separate government agencies. In 2007 Indonesia passed a new Energy Law No. 30/2007 which addressed the hydrocarbon sector's role in national development and established overall energy policies.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2005, 2007</td>
<td>6, 9</td>
<td>Commercial functions are separated from policy and regulatory functions in the hydrocarbon sector. Pertamina, PGN, and non-NOC participants in the upstream and downstream sectors have a commercial role as authorized by Oil and Gas Law No. 22/2001. Pertamina competes with IOCs for the allocation of petroleum rights. Pursuant to the 2007 Energy Law, Indonesia will create a National Energy Council which will design and formulate national energy policies to be adopted by the government with House of Representatives approval. The Council will have 15 members: 7 appointed by Indonesia's President and eight are selected by the House of Representatives. These latter members will include people from academia, industry, technology, environmental and consumer circles. BP Migas is the upstream regulator and BP Migas is the downstream regulator.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance: Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Pertamina's unranked goals include: fuel sales volumes targets; oil and gas production targets; revenue, cost and net profit targets; investment targets and an overall performance rating target.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance: Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2008, 2006</td>
<td>1, 2</td>
<td>No transfer strategy disclosed for the activities reported on Pertamina's website, corporate social responsibility. The government already bears the cost of the price subsidies.</td>
<td></td>
</tr>
<tr>
<td>-Other Factors</td>
<td>Public Sector Governance: Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>13, 14</td>
<td>Indonesia does not have a petroleum fund. In application of the Mining Royalties Act local governments and some provinces receive a percentage of the royalties from the sale of oil and gas. The website of the Ministry of Finance reports data such as budget note (nota keuangan), draft budget, approved budget, revised budget, and realized budget, once they are launched. The budget has very detailed information of each revenue account (including natural resources revenue, tax and non-tax). Of particular interest is the website of the rehabilitation and reconstruction treasury office in Aceh, which published daily updates on public spending. The website is often cited as best practice, and is considered a pilot project for improved budget transparency.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance: NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008, 2007</td>
<td>7, 10, 11</td>
<td>Indonesia and Pertamina are currently not involved in the EITI effort. National Democratic Institute and Transparency International have active programs in the country.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability: Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2005-2008</td>
<td>1, 2, 6, 8</td>
<td>Information is not available to assess Pertamina's ability to fund capital expenditures. There has been a high level of investment in the upstream and LNG sectors in the past as evidenced by operating projects and PSAs. However,</td>
<td></td>
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</tbody>
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<table>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>Pertamina is unrated.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>See comments on investment levels above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2005 6</td>
<td>Oil and Gas Law No. 22/2001.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Yes, see comments on investment levels above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2005 6</td>
<td>PSAs and joint venture LNG projects.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>Pertamina is an integrated company operating in the upstream and downstream sectors. The midstream and downstream gas sector is the purview of another NOC-PGN (see above).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
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<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007</td>
<td>2</td>
<td>Upstream PSAs and LNG joint ventures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2005-2007</td>
<td>1, 2, 6</td>
<td>See above. The 2001 law does not appear to require that non-NOCs partner with Pertamina. For example, Pertamina does not participate in the Tangguh LNG project.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006</td>
<td>8</td>
<td>PGN dominates the midstream/downstream gas sector. Pipeline expansions are underway but non-NOCs do not appear to be investing in them. There is open pipeline access and direct sales to Indonesian end users are permitted; BP Migas must approve price and contract</td>
</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007</td>
<td>2</td>
<td>Successful PSAs and LNG joint ventures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008</td>
<td>1</td>
<td>None to date.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008</td>
<td>1</td>
<td>No international operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2005</td>
<td>6</td>
<td>Pertamina is divesting non-core hotel, airline, insurance and hospital businesses among others.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2005</td>
<td>6</td>
<td>BP Migas, established in 2002, regulates upstream oil and gas exploration and production. It is also the contracting party in PSAs. BP Migas, established in 2002, regulates oil and gas refining, storage, transportation, distribution and marketing. The effect of the 2001 Oil Law and its implementing regulations is not clear in many places and the regulators are evolving.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers</td>
<td>2005</td>
<td>6</td>
<td>See above. Price subsidies, although reduced, limit competition in some sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. Brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>3</td>
<td>Although Pertamina provides oil products and LPG price subsidies, these are directly recompensed by the government and are not a net cost to the company. Despite sharp price increases, price subsidies remain a significant cost to the Indonesian government at $7.7 billion and $9.9 billion in 2004 and 2005, respectively.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. Brief description of programs and support</td>
<td>2008</td>
<td>1</td>
<td>Disclosure on company website. Most appear health related.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2008</td>
<td>1</td>
<td>Extremely limited with respect to Pertamina. There is good country data on Indonesia, particularly through the US Embassy in Jakarta.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Pertamina was established in 1957 with a monopoly in oil and gas upstream and downstream activities. It was transformed in 2003 into a public liability company PT Pertamina (Persero).</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Indonesia faces serious questions with regard to sustainability of its natural gas production and related businesses. Various issues in recent years have forced Pertamina to acquire LNG cargos from other suppliers in order to meet contractual issues. Indonesia’s exit from OPEC represented something of a cultural shift for that nation’s oil and gas business interests. To its advantage, Pertamina has had long and successful experience with</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>18,000</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td></td>
<td>21,614</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
<td>29.78</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>-4.84%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>-1.46%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>4,370.00</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td></td>
<td>105,943.99</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>22,636.20</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>94%</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
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<td>19.31%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
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<td>99.89%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>121.00%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

<table>
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<th>Source Description</th>
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<tr>
<td>2</td>
<td>2007</td>
<td>USEIA Country Analysis Brief-Indonesia, Jan. 07.</td>
<td><a href="http://www.eia.doe.gov">www.eia.doe.gov</a></td>
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<tr>
<td>4</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
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<td>7</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
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<tr>
<td>10</td>
<td>Current</td>
<td>Transparency International - Indonesia</td>
<td><a href="http://www.ti.or.id/">http://www.ti.or.id/</a></td>
</tr>
</tbody>
</table>
## Malaysia: Petronas

**Corporate Governance Highlights**

### Corporate Organization and Ownership

Petronas is a Malaysian integrated oil and gas company. The Petronas Group has 62 direct subsidiaries of which 42 are wholly-owned. Of the 42 wholly-owned subsidiaries, 27 are domestic and 15 are foreign.

### Shares Controlled by Government

The Malaysian government owns 100% of Petronas and the company reports directly to the Prime Minister of Malaysia. The shareholder is the Ministry of Finance.

### Domestic, International Exchanges for Equity Listings

Four Petronas subsidiaries are listed on the Malaysian Stock Exchange.

### Board of Directors Structure

The BOD has eight members and reports directly to the Prime Minister. Four members are from Petronas management including the Chairman of the BOD. The other four members are government-related: Director General of the Economic Planning Unit; General Secretary of the Ministry of Finance; Director of the Economic and Coordination Unit and the independent advocate and solicitor.

### Independent Board Members

No independent BOD members.

### Is chairman also minister of energy or otherwise appointed by head of state?

The Prime Minister appoints the Chairman of the BOD who is also Chairman of Petronas. The Chairman reports directly to the Prime Minister.

## Operations Highlights

### Upstream Oil

For the fiscal year ended 3/31/07 Petronas reported proven domestic reserves of 5.4 million barrels of oil and 86 TCF of gas reserves which represents 100% of Malaysia's reserves. Petronas reported domestic production of 1.1 MMBOE/D for 2007 down 3% from 2006. 55% of its domestic production is natural gas. Petronas accounts for 77% of Malaysia's oil production and 65% of its gas production. Foreign and private companies operate pursuant to production sharing contracts (PSAs) negotiated and administered by Petronas. ExxonMobil is the largest oil producer of the private/foreign companies. Exploration activities are currently focusing on offshore deepwater prospects. Petronas is a net exporter of oil and gas focusing on Asian markets. For fiscal 2007, Petronas reported international reserves of 2.6 million barrels of oil and 22 TCF of gas representing 33% and 20% of the company's oil and gas reserves respectively. International production for fiscal 2007 was 582 MBOE/D up 35% from 2006. International production accounts for 34% of Petronas' total production. Petronas operates in more than 20 countries including Vietnam, Myanmar, Indonesia, Sudan, Iran, Chad, Egypt, Pakistan, Thailand, Russia, India and Turkmenistan. Most international investment is carried out by Petronas Carigali and has an upstream focus.

### Midstream Oil

Petronas operates 2,146 kilometers of condensate, oil and refined product pipelines in Malaysia.

### Downstream Oil

As of 3/31/07 Malaysia had 556.3 MMB/D of refinery capacity: 56% of this capacity is owned and operated by Petronas and the remainder is operated by Shell and ExxonMobil. Petronas' 2007 refinery utilization rate was 91%. Petronas exported 49% of its refined product production in 2007. 58% of refinery feedstock came from Malaysia with the remainder from Turkmenistan and Sudan. Petronas' domestic retail arm, Petronas Dagangan Berhad (PDB), has a 42% market share and faces competition from Shell, Chevron and BP. Petronas also conducts oil products retail businesses in South Africa, Sudan, Thailand, Japan, Singapore, China and Italy. The company owns a refinery in South Africa.

### Upstream Natural Gas

Proved domestic natural gas reserves increased 1.1% from 2006 to 2007. Petronas' gas production was 1.3 TCF in 2007 down 2% from 2006 and representing 70% of total Malaysian production. Malaysia is a net exporter of gas in the form of LNG primarily to Japan, South Korea and Taiwan. Natural gas exploration and production is currently focused deepwater offshore. Petronas reported international gas reserves of 21.8 TCF at fiscal year end 2007, up 5% from 2006, and representing 25% of Petronas' total gas reserves. 2007 international gas production was 709 BCF, up 36% from 2006, and representing 35% of Petronas' total gas production. Most international gas production comes from Egypt and Iran followed by Thailand and Myanmar.
**Midstream Natural Gas**

Petronas operates the 880 mile, 2 BCF/D capacity, Peninsular Gas Utilization (PGU) pipeline project. Throughput on PGU increased 5% from 2006 to 2007 and the system is operating at or above capacity. The PGU permits small amounts of piped gas trading with Singapore and Indonesia. In 2006 the Trans-Thailand-Malaysia Gas Pipeline System was completed which allows Petronas to transport gas produced in the Malaysia-Thailand joint development area to peninsular Malaysia. Electric generation accounts for 67% of Malaysian gas demand and total demand grew 4% from 2006 to 2007. Petronas provides significant gas price subsidies to power generators and the non-power sector (small industrial, commercial, residential users) in Malaysia. The subsidy for fiscal 2007 was $4.3 billion, up 9% from fiscal 2006. The subsidy to the non-power sector grew 39% from 2006 to 2007. The cumulative subsidy since 1997 is about $16 billion.

**Downstream Natural Gas**

Malaysia has three LNG liquefaction plants with total capacity of 22.7 million metric tons per year. Petronas has a 60-65% interest in all three plants. Petronas domestic LNG production remained flat from 2006 to 2007 at 21.5 million metric tons.

Petronas has two overseas LNG projects: a 7.2 MMty liquefaction plant in Egypt and a regasification plant in the UK. Petronas owns 36-38% of the Egyptian plant which became operational in 2006. The UK plant expects operations to begin by year end 2008. Petronas' petrochemical production increased 11% to 9.8 million metric tons in fiscal 2007 with a capacity utilization rate of 95%.

**Other**

Petronas has logistics and maritime businesses led by subsidiary MISC Berhad. It operates 112 LNG vessels and more than two-thirds of its fleet services Petronas' oil, LNG and petrochemical businesses. The company expects to add six new LNG vessels by 2009-2011. In late 2007 Petronas purchased eight upstream areas in Mauritania from Woodside Petroleum Ltd.

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td>7,394</td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
<td>105,786</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
<td>268</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
<td>1,767</td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
<td>138</td>
</tr>
</tbody>
</table>

**Financial Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues ($Millions)</strong></td>
<td>35,386</td>
</tr>
<tr>
<td><strong>Consolidated Average Total Assets ($Millions)</strong></td>
<td>68,513</td>
</tr>
<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
<td>16,647</td>
</tr>
<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
<td>10,105</td>
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**Categorization Indicators**

<table>
<thead>
<tr>
<th>Categories:</th>
<th>Scores:</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>63</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>72</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
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<tr>
<td>Fiscal Regimes</td>
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<tr>
<td>Resource Endowment</td>
<td>4</td>
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<tr>
<td>Oil Dependency</td>
<td>97</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>67</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>58</td>
</tr>
<tr>
<td>Average</td>
<td>73</td>
</tr>
</tbody>
</table>
Petronas has been a highly profitable company despite the gas price subsidy burden, its somewhat opaque corporate governance and its regulatory duties in the PSA arena. Its international operations are more extensive than most other NOCs. The company intends to rely on international upstream activities to balance possibly declining Malaysian reserves and production. However, analysts state that Petronas' international operations are less diversified and less developed than those of major oil companies. The government recently reduced the gas price subsidy which has been politically controversial in Malaysia and is generating negative press for Petronas.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
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<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>1</td>
<td>Petroliam Nasional Berhad (Petronas) is a Malaysian integrated oil and gas company. The Petronas Group has 62 direct subsidiaries of which 42 are wholly-owned. Of the 42 wholly-owned subsidiaries, 27 are domestic and 15 are foreign.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1</td>
<td>The Malaysian government owns 100% of Petronas and the company reports directly to the Prime Minister of Malaysia. The shareholder is the Ministry of Finance.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
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<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
<td>1</td>
<td>Four Petronas subsidiaries are listed on the Malaysian Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
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<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
<td>1</td>
<td>The BOD has eight members and reports directly to the Prime Minister. Four members are from Petronas management including the Chairman of the BOD. The other four members are government-related: Director General of the Economic Planning Unit; General Secretary of the Ministry of Finance; Director of the Economic and Coordination Unit and the independent advocate and solicitor.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007</td>
<td>1, 5</td>
<td>The Prime Minister appoints the Chairman of the BOD who is also Chairman of Petronas. The Chairman reports directly to the Prime Minister.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>1</td>
<td>None who is independent of the company or the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>1</td>
<td>No data.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2006</td>
<td>7</td>
<td>Sets strategic goals; approves investments and cash deployment; controls the budgeting process.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2007</td>
<td>5</td>
<td>The Chairman of the Board has considerable personal power as he is selected by and reports to the Prime Minister. The current Chairman, Mohd Hassan Marican, is also President and Chief Executive Officer of Petronas. He became Chairman in 2004 after a Petronas career that began in 1989. Petronas is largely independent of other government ministries.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2006-2007</td>
<td>1, 5, 7</td>
<td>No data. From its financial reports, the company clearly manages a large capital budget. Petronas management has a reputation for good commercial management which is competent and highly effective. The BOD appears to control the budget process.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007</td>
<td>1, 5, 7</td>
<td>See above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>1, 6</td>
<td>Yes as evidenced by Petronas’ participation in PSAs with foreign and private companies in the upstream sector and its joint venture participation in three LNG liquefaction facilities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>Vision: &quot;To be a leading Oil and Gas Multinational of Choice&quot;. It will develop a leading core oil and gas business in which it is &quot;capability advantaged&quot; and will expand these businesses internationally. It will be focused on profitability and growth. It will develop an increasingly international culture and world class organizational management and business practices while retaining a distinct Malaysian identity. It will be a good corporate citizen in the areas where it operates.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2007</td>
<td>1, 6</td>
<td>Petronas has been able to fund its investment projects; for the three years ended 2006 operating cash flow/capital expenditures was 242%. There is continued active investment in Malaysia's upstream sector and several new projects will come onstream in the next several years.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>1</td>
<td>Petronas states that its financial statements are audited in accordance with standards issued by the Malaysian Accounting Standards Board, but does not disclose the auditor.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2,007</td>
<td>1</td>
<td>No data. In its 2007 annual report Petronas emphasizes its investments in professional development and skills training to increase capability and competency. Coaching and mentoring programs are widely implemented and leadership training is employed.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008</td>
<td>1</td>
<td>On its web site Petronas provides qualitative data on social and economic contributions to Malaysia and other countries. It discloses annually the cost of the natural gas price subsidies it provides to domestic power generators and other industries.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2006</td>
<td>1</td>
<td>Natural gas price subsidies for the three years ended 2006 totaled close to $7 billion.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td>1, 6</td>
<td>For the fiscal year ended 3/31/07 Petronas reported proven domestic reserves of 5.4 million barrels of oil and 86 TCF of gas reserves which represents 100% of Malaysia's reserves. Petronas reported domestic production of 1.1 MMBOE/D for 2007 down 3% from 2006. 55% of its domestic production is natural gas. Petronas accounts for 77% of Malaysia's oil production and 65% of its gas production. Foreign and private companies operate pursuant to production sharing contracts (PSAs) negotiated and administered by Petronas. ExxonMobil is the largest oil producer of the private/foreign companies. Exploration activities are currently focusing on offshore deepwater prospects. Petronas is a net exporter of oil and gas focusing on Asian markets. For fiscal 2007, Petronas reported international reserves of 2.6 million barrels of oil and 22 TCF of gas representing 33% and 20% of the company's oil and gas reserves respectively. International production for fiscal 2007 was 582 MBOE/D up 35% from 2006. International production accounts for 34% of Petronas' total production. Petronas operates in more than 20 countries including Vietnam, Myanmar, Indonesia, Sudan, Iran, Chad, Egypt, Pakistan, Thailand, Russia, India and Turkmenistan. Most international investment is carried out by Petronas Carigali and has an upstream focus.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2006</td>
<td>1</td>
<td>Yes. Petronas is largely characterized as being on the forefront of NOC-NOC international joint ventures.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006</td>
<td>1, 6</td>
<td>Petronas operates 2,146 kilometers of condensate, oil and refined product pipelines in Malaysia.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006</td>
<td>1, 6</td>
<td>As of 3/31/07 Malaysia had 556.3 MMB/D of refinery capacity: 56% of this capacity is owned and operated by Petronas and the remainder is operated by Shell and ExxonMobil. Petronas' 2007 refinery utilization rate was 91%. Petronas exported 49% of its refined product production in 2007. 58% of refinery feedstock came from Malaysia with the remainder from Turkmenistan and Sudan. Petronas' domestic retail arm, Petronas Dagangan Berhad (PDB), has a 42% market share and faces competition from Shell, Chevron and BP. Petronas also conducts oil products retail businesses in South Africa, Sudan, Thailand, Japan, Singapore, China and Italy. The company owns a refinery in South Africa.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1, 6</td>
<td>Proved domestic natural gas reserves increased 1.1% from 2006 to 2007. Petronas' gas production was 1.3 TCF in 2007 down 2% from 2006 and representing 70% of total Malaysian production. Malaysia is a net exporter of gas in the form of LNG primarily to Japan, South Korea and Taiwan. Natural gas exploration and production is currently focused deepwater offshore. Petronas reported international gas reserves of 21.8 TCF at fiscal year end 2007, up 5% from 2006, and representing 25% of Petronas' total gas reserves. 2007 international gas production was 709 BCF, up 36% from 2006, and representing 35% of Petronas' total gas production. Most international gas production comes from Egypt and Iran followed by Thailand and Myanmar.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
<td>1, 6 Petronas operates the 880 mile, 2 BCF/D capacity, Peninsular Gas Utilization (PGU) pipeline project. Throughput on PGU increased 5% from 2006 to 2007 and the system is operating at or above capacity. The PGU permits small amounts of piped gas trading with Singapore and Indonesia. In 2006 the Trans-Thailand-Malaysia Gas Pipeline System was completed which allows Petronas to transport gas produced in the Malaysia-Thailand joint development area to peninsular Malaysia. Electric generation accounts for 67% of Malaysian gas demand and total demand grew 4% from 2006 to 2007. Petronas provides significant gas price subsidies to power generators and the non-power sector (small industrial, commercial, residential users) in Malaysia. The subsidy for fiscal 2007 was $4.3 billion, up 9% from fiscal 2006. The subsidy to the non-power sector grew 39% from 2006 to 2007. The cumulative subsidy since 1997 is about $16 billion.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>1 Malaysia has three LNG liquefaction plants with total capacity of 22.7 million metric tons per year. Petronas has a 60-65% interest in all three plants. Petronas domestic LNG production remained flat from 2006 to 2007 at 21.5 million metric tons. Petronas has two overseas LNG projects: a 7.2 MMt/y liquefaction plant in Egypt and a regasification plant in the UK. Petronas owns 36-38% of the Egyptian plant which became operational in 2006. The UK plant expects operations to begin by year end 2008. Petronas' petrochemical production increased 11% to 9.8 million metric tons in fiscal 2007 with a capacity utilization rate of 95%.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>Petronas has logistics and maritime businesses led by subsidiary MISC Berhad. It operates 112 LNG vessels and more than two-thirds of its fleet services Petronas' oil, LNG and petrochemical businesses. The company expects to add six new LNG vessels by 2009-2011. In late 2007 Petronas purchased eight upstream areas in Mauritania from Woodside Petroleum Ltd.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>2006</td>
<td>1</td>
<td>119%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>2006</td>
<td>1</td>
<td>$2.50</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>2006</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>2006</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>2006</td>
<td>1</td>
<td>103%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td></td>
<td>242%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td></td>
<td>47%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td></td>
<td>29%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>39%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td>242%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2006</td>
<td>6, 7</td>
<td>Although not specifically related to national development objectives, the Petroleum Development Act of 1974 vests Petronas with the sole ownership and rights of oil and gas exploration and production in Malaysia. All foreign and private companies must operate through PSAs with Petronas.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2006-2007</td>
<td>1, 5, 6, 8</td>
<td>The Prime Minister's Economic Planning Unit (EPU) and Implementation and Coordination Unit (ICU) are responsible for energy policies. Petronas and other non-NOC participants in the hydrocarbon sector have the commercial function. However, the regulatory function is intertwined with policy and commercial functions: the EPU regulates natural gas prices and Petronas negotiates and administers PSAs. One independent ministry, the Ministry of Domestic Trade &amp; Consumer Affairs, regulates the price of petroleum products.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Vision: To be a leading Oil and Gas Multinational of Choice. It will develop a leading core oil and gas business in which it is &quot;capability advantaged&quot; and will expand these businesses internationally. It will be focused on profitability and growth. It will develop an increasingly international culture and world class organizational management and business practices while retaining a distinct Malaysian identity. It will be a good corporate citizen in the areas where it operates.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2008</td>
<td>1</td>
<td>None disclosed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>The amount of oil and gas-related revenue received eventually by government is reported in official budget documents, which are available on the Treasury’s website (although the figures are not broken down in detail). Except for a future generation fund created in 1988, and a 5% of royalties allocated to three oil provinces, petroleum revenues are not differentiated from other revenues, and are managed in accordance with the country’s public finance management system.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008, 2007</td>
<td>9, 10, 11</td>
<td>Malaysia/Petronas do not participate in EITI. National Democratic Institute and Transparency International both operate in Malaysia.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2006, 2007</td>
<td>1, 6, 7</td>
<td>Petronas has not had difficulty in funding its investment portfolio despite the natural gas price subsidy burden: operating cash flow/capital expenditures was 242% for the three years ended 2006 and its debt/total capital is a reasonable 22%. There are numerous non-NOC participants investing in the upstream, LNG and retail oil products sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2006</td>
<td>7</td>
<td>Petronas is investment grade: A-/A+ (Standard &amp; Poors).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2006</td>
<td>6</td>
<td>Exploration and production activities have grown in recent years and Petronas and its PSA partners have been most active exploring offshore areas, especially deepwater zones.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>1</td>
<td>The Petroleum Act of 1974 gives Petronas the exclusive right to negotiate PSAs with other participants. Given the level of activity and investment, this approach has been successful.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>1</td>
<td>See above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>6</td>
<td>PSAs in the upstream and joint ventures in LNG.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>Petronas is a vertically integrated company.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>Yes, see operating conditions discussions above.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Avg company international BOE production as % avg total company BOE production</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Change in company BOE production from international operations (%)</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Does NOC make investments abroad</td>
<td>2006 1 Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Avg company international refinery throughput as % total refinery throughput</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Change in company refinery throughput from international operations (%)</td>
<td>29%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Non-NOC participants in upstream</td>
<td>2006 1, 6 Yes, numerous.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006 1, 6 Non-NOC participants must enter into PSAs with Petronas. ExxonMobil is the largest oil producer in Malaysia and most natural gas production comes from PSAs operated by foreign companies.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006 6 Petronas dominates the midstream/downstream gas sectors including LNG with its 60-65% ownership in the three liquefaction facilities. In refining, ExxonMobil and Shell control 53% of refining capacity without Petronas participation. Shell, Chevron and BP compete with Petronas in the retail oil products sector.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2006 6 High prevalence and high success of upstream PSAs and LNG joint ventures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006</td>
<td>1</td>
<td>Generally good, reliable data. Financial disclosure is more limited than that required by the US SEC but Petronas reports much more financial data than other 100% government owned NOCs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2008</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2003, 2007</td>
<td>1, 5, 6, 8</td>
<td>The regulatory function is intertwined with policy and commercial functions: the EPU regulates natural gas prices and Petronas negotiates and administers PSAs. One independent ministry, the Ministry of Domestic Trade &amp; Consumer Affairs, regulates the price of petroleum products.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services.</td>
<td>2006</td>
<td>6</td>
<td>Some competition exists in the upstream, refining, LNG and oil products sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2008</td>
<td>1</td>
<td>Petronas data is generally good quality.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2006</td>
<td>6</td>
<td>No data at the consumer interface. The investment interface appears to work well in the upstream, refining, LNG and oil products sectors.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>1</td>
<td>Petronas provides extensive natural gas price subsidies to the power sector in order to maintain low electricity prices and the financial viability of the state-owned electricity company. Some subsidies are provided to industrial customers. The cumulative subsidy cost since 1997-2006 is about $11 billion.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2006</td>
<td>1</td>
<td>Disclosure on company website.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$2,141.03</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$1,105.82</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1</td>
<td>Generally good and reliable data.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Petronas was incorporated in 1974 under the Companies Act of 1965. It has remained wholly-owned by the government. It has four subsidiaries listed on the Bursa Malaysia.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Petronas has been a highly profitable company despite the natural gas price subsidy burden, its somewhat opaque corporate governance and its regulatory duties in the PSA arena. Its international operations are more extensive than most other NOCs. Indeed, Petronas is considered something of a pioneer with regard to overseas ventures pursued by closely held NOCs. The company intends to rely on international upstream activities to balance possibly declining Malaysian reserves and production. However, analysts state that Petronas’ international operations are less diversified and less developed than those of major oil companies. The government recently reduced the gas price subsidy which has been politically controversial in Malaysia.</td>
</tr>
</tbody>
</table>
### Malaysia: Petronas Nasional Berhad (Petronas)

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response and is generating negative press for Petronas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>32,000</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>22,198</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>31.71</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>2.39%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>2.56%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>5,357.00</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>87,403.79</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>20,426.62</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Unaudited</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>96%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>76%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>68.39%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>65%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>26.23%</td>
</tr>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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Sources of Information

<table>
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<th>Source Description</th>
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<tr>
<td>1</td>
<td>2006</td>
<td>Petronas Annual Reports and Annual Consolidated Financial Statements.</td>
<td><a href="http://www.petronas.com/investorrelations">www.petronas.com/investorrelations</a></td>
</tr>
<tr>
<td>3</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
</tr>
<tr>
<td>7</td>
<td>2006</td>
<td>&quot;Petroliam Nasional Berhad Ratings Analysis,&quot; Standard &amp; Poor's, 10/11/06.</td>
<td><a href="http://www.ratingsdirect.com">www.ratingsdirect.com</a></td>
</tr>
<tr>
<td>8</td>
<td>2008</td>
<td>Economic Planning Unit, Prime Minister's Department</td>
<td><a href="http://www.epu.jpm.my">www.epu.jpm.my</a></td>
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<tr>
<td>9</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
</tr>
</tbody>
</table>
### Summary Report

#### Corporate Governance Highlights

**Corporate Organization and Ownership**
The share capital is divided as follows: 52.31% Ministry of Financed; 7.77% Vayupak Fund 1 by MFC Asset Management Plc; 7.77% Vayupak Fund 1 by Krung Thai Asset Management Plc.; and 31.15% Institutional and Public Investors such as various banks; Social Security Office; Government Pension Fund, etc.

**Shares Controlled by Government**
52.31%

**Domestic, International Exchanges for Equity Listings**
Security Exchange of Thailand (SET). PTT plc accounts for 20 per cent of the total capitalization on the SET.

**Board of Directors Structure**
PTT Board of Directors consists of 4 committees: Audit Committee, Nominating Committee, Remuneration Committee and Corporate Governance Committee. The President, who is the top executive, manages PTT through 11 committees. The present Board consists of 15 directors: 14 non-management directors (10 of whom are independent), and one President.

**Independent Board Members**
Ten of fifteen board members are independent. The shareholders’ meetings are held to elect qualified directors who have previously been selected and nominated by the Nominating Committee (based on certain criteria).

**Is chairman also minister of energy or otherwise appointed by head of state?**
No

#### Operations Highlights

**Upstream Oil**
Through its E&P subsidiary, PTTEP, PTT’s overseas locations include Southeast Asian countries, among them Burma, Cambodia, Indonesia, and Malaysia. However, PTTEP has also invested in E&P projects in Algeria, Iran, and Oman, and has considered upstream investments in several other countries.

**Midstream Oil**
Operated by PTT’s subsidiary - Thai Petroleum Pipeline Company (Thappline). Thappline supplies 30-40% of refined petroleum products. It owns a distribution network of 255 kilometers of pipeline. Thappline oil transportation system includes a multiproduct (jet fuel, diesel oil, gasoline, etc) pipeline with a capacity of 26,000 million liters of oil per year. There are 2 oil distribution terminals, constructed by Thappline.

**Downstream Oil**
PTT is considerably involved in the downstream sector with stakes in all 4 of the country’s refineries and equity interests in downstream subsidiaries (Thaioil and Thappline).

**Upstream Natural Gas**
In the upstream, there is competition among several producers, with three companies dominating – UNOCAL (now Chevron), PTTEP and Total. These companies also have joint partnerships in some projects.

**Midstream Natural Gas**
"Gas transmission is solely operated by the public organization, PTT. The pipeline tariff rate is regulated by NEPO/NEPC. Future demand for gas transmission system remains continual."

**Downstream Natural Gas**
"PTT purchases all indigenous gas from the producers, including PTTEP and transmits it through its pipelines to end-users. The rate of return from the gas supply and distribution is regulated by NEPO/NEPC."

**Other**
74% of natural gas supply is used for power generation; mostly by Electricity Generating Authority of Thailand (EGAT).
Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td></td>
<td>168</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td></td>
<td>5,001</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td></td>
<td>344</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td></td>
<td>No data</td>
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</table>

Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Measurement</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td></td>
<td>33,199</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td></td>
<td>20,878</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td></td>
<td>3,662</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td></td>
<td>2,523</td>
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Categorization Indicators

<table>
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<th>Category</th>
<th>Score</th>
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</thead>
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<tr>
<td>Corporate Governance</td>
<td>84</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>71</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>100</td>
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<tr>
<td>Resource Endowment</td>
<td>0</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>0</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>97</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>83</td>
</tr>
<tr>
<td>Average</td>
<td>59</td>
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</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

As stated in the Japanese Credit Rating Agency’s outlook, PTT is strategically important to the Thai government because it plays a strong public policy role in developing long-term supply of gas and indirectly supporting electricity supply in Thailand. Because the company is 51% owned by the Ministry of Finance, the financial performance of the NOC is monitored by the Ministry of Finance for soundness and because of its strategic importance in energy policy.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2007</td>
<td>3</td>
<td>Only PTT Public Company Ltd. (formerly the Petroleum Authority of Thailand).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2007</td>
<td>1</td>
<td>The share capital is devided as follows: 52.31% Ministry of Financed; 7.77% Vayupak Fund 1 by MFC Asset Management Plc; 7.77% Vayupak Fund 1 by Krung Thai Asset Management Plc.; and 31.15% Institutional and Public Investors such as various banks; Social Security Office; Government Pension Fund, etc</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1</td>
<td>52.31%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>Security Exchange of Thailand (SET). PTT plc accounts for 20 per cent of the total capitalization on the SET.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1</td>
<td>PTT Board of Directors consists of 4 committees: Audit Committee, Nominating Committee, Remuneration Committee, and Corporate Governance Committee. The President, who is the top executive, manages PTT through 11 committees. The present Board consists of 15 directors: 14 non-management directors (10 of whom are independent), and one President.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
<td>Ten of fifteen board members are independent. The shareholders’ meetings are held to elect qualified directors who have previously been selected and nominated by the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2007</td>
<td>1</td>
<td>“At every Annual General Meeting of Shareholders (AGM), one-third of the directors – or if this number is not a multiple of three, then the number nearest to one-third – must retire. The names of the directors to retire during the first and second year after PTT was listed are to be drawn by lots. For subsequent years, those with the longest terms must retire. In voting for the dismissal of directors from office before the expiry of their terms, a three-quarter (3/4) vote of eligible shareholders present at the meeting is required, provided that the number of shares represented by the three-quarters vote is at least half of the total number of shares represented by the total number of eligible shareholders present at the meeting.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>1</td>
<td>“Authority of the Board The Board is authorized to supervise and manage PTT under relevant laws, objectives, regulations, and resolutions of shareholders’ meetings. The Board is to elect one director to serve as Chairman. If suitable, one Vice Chairman or more may be elected. The Board is to elect one director to serve as President and Secretary to the Board if suitable. Duties and Responsibilities of the Board The Board is to: Carry out its duties under relevant laws, objectives, regulations, and resolutions of shareholders’ meetings. Define the Company’s vision, directions, and strategies. Endorse major Company strategies and policies, including objectives, financial targets, and operating plans; monitor and ensure plan implementation. Institute proper systems for corporate accounting, financial reporting, and financial auditing; institute efficient and effective internal control and internal</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No clear indication.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes.</td>
<td></td>
</tr>
</tbody>
</table>

audit systems. Supervise and remedy problems arising from conflicts of interest and connected transactions. Define comprehensive risk management guidelines; and ensure an efficient risk management system or process. Ensure a suitable compensation system or mechanism for senior management, to induce short-term and long-term motivation. Assess the performance of the President and determine suitable compensation. Ensure suitable communicating channels with each group of shareholders and stakeholders. Ensure accurate, clear, transparent, credible, and high-quality disclosure of information. Show leadership and lead by example."
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>1</td>
<td>&quot;Ever since our inception, our focus has been on fostering the security of supply and laying down a firm foundation that would lead to economic potency and add value for Thailand and its people... Our aim is not only to foster a national energy company that's known for its robust growth in the world arena, but also to achieve a harmonious balance between economic, social, and environmental growth. In other words, PTT strives for Thailand's growth while providing sustainable power for a brighter tomorrow for Thais.&quot; Vision: &quot;A world-class self-financing integrated petroleum and related corporation in Thailand and overseas, aiming for value maximization for the ultimate benefit of the organization, balancing commercial and government objective.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>PTT seems to have adequate cash flow to support its investment targets.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>Office of Corporate Audit and Audit Committee exist, but there is no clear indication of extent of transparency.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>The only information available is the breakdown by number of people in business units: Gas – 1,108; Oil – 1,254; Petrochemicals and Refining - 75; Support Staff/Secondee to PTT Affiliates – 1,107; Subsidiaries and Jointly Controlled Entities – 7,086.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>1</td>
<td>&quot;At the heart of human resource management is human resource development. PTT has developed career management processes for greater efficiency through the appointment of career counseling teams and a career management counseling committee, both charged with defining and developing employees’ individual competence in support of PTT’s future business. The objective of career management processes is to give employees maximum professional competence and expertise, the development of which will be defined by the Company. Development may be achieved through training programs, job rotation, and appointment and promotion of employees to suit their responsibility and potential. Properly implemented, this employee development will produce employees with the competence desired by both the individuals and the Company – leading to PTT’s ultimate achievement.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>Information is available on environmental, education, society and community, sports, arts, and culture projects supported.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
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<td>No data.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2007</td>
<td>3</td>
<td>Through its E&amp;P subsidiary, PTTEP, PTT’s overseas operations include other Southeast Asian countries, such as Burma, Cambodia, Indonesia, and Malaysia. In addition, PTTEP participates in E&amp;P projects in Algeria, Iran, and Oman, and has considered upstream investments in several other countries.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>Operated by PTT’s subsidiary - Thai Petroleum Pipeline Company (Thappline).</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>PTT is considerably involved in the downstream sector with stakes in all 4 of the country’s refineries and equity interests in downstream subsidiaries (Thaioil and Thappline).</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td>In the upstream, there is competition among several producers, with three companies dominating - UNOCAL (now Chevron), PTTEP and Total. These companies also have joint partnerships in some projects.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2005</td>
<td>&quot;Gas transmission is solely operated by the public organization, PTT. The pipeline tariff rate is regulated by NEPO/NEPC. Future demand for gas transmission system remains continual.&quot;</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2005</td>
<td>&quot;PTT purchases all indigenous gas from the producers, including PTTEP and transmits it through its pipelines to end-users. The rate of return from the gas supply and distribution is regulated by NEPO/NEPC.&quot;</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td>74% of natural gas supply is used for power generation; mostly by Electricity Generating Authority of Thailand (EGAT)</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>No data</td>
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<td>Indicator Category</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>120%</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>8%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>120%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008 10</td>
<td>As stated in the Japanese Credit Rating Agency’s outlook, PTT is strategically important to the Thai government - which controls the majority of PTT’s share capital – for its role in developing long-term supply of gas, and indirectly supporting the electricity sector. The Ministry of Finance monitors the financial performance of the NOC.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td>The Energy Policy and Planning Office (EPPO), which is part of Thailand’s Ministry of Energy, oversees all aspects of the country’s energy policies, including the oil, natural gas, and power sectors. The National Economic and Social Development Board oversees large energy infrastructure projects and also assists in the policy planning process. Commercial activities are carried out by PTT and its subsidiaries.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007 7</td>
<td>The main objective of PTT is &quot;to serve as an efficient government working arm in implementing national energy policy for the country’s best interests.”</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes</td>
<td></td>
<td>No data.</td>
<td></td>
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</table>
### Indicator

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<thead>
<tr>
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<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>available</td>
<td>Oil and gas revenues are reported in the state budget (although not in a disaggregated form) published on the Ministry of Finance’s website. Thailand does not have a petroleum fund or a publicly disclosed petroleum revenue management policy.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>Thailand does not participate in EITI initiatives.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Thai III Fiscal Regime: royalty - sliding scale on sales volume level (5%-15%); petroleum income tax - fixed rate 50%; special remuneration benefits - 0-75%. SRB is “windfall profits” tax, payable only in years concessionaire has “petroleum profit”. In calculating such petroleum profit for the year, there may be deducted capital expenditure, operating costs, a special reduction (an expense “uplift”) for the year, and petroleum loss carried forward from prior years. SRB is calculated by exploration block at following rates, subject to a ceiling of 75% of petroleum profit:</td>
<td></td>
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<table>
<thead>
<tr>
<th>Income per meter of well</th>
<th>SRB</th>
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</thead>
<tbody>
<tr>
<td>Up to Baht 4,800</td>
<td>zero</td>
</tr>
<tr>
<td>Baht 4,800 to 14,400</td>
<td>1% per each Baht 240 increment</td>
</tr>
<tr>
<td>Baht 14,400 to 33,600 Baht</td>
<td>1% per each Baht 960 increment</td>
</tr>
<tr>
<td>Over 33,600 Baht</td>
<td>1% per each Baht 3,840 increment</td>
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</table>

To determine “income per meter of well”, first calculate annual petroleum profit and adjust for
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<tbody>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>5</td>
<td>As of Feb 2008, PTT Public Company Limited’s (PTT) National Long-term rating was 'AA+(tha)' and its National Short-term rating - at 'F1+(tha)'. The National Long-term rating on PTT's outstanding senior unsecured and unsubordinated debentures amounts to THB88.2 billion at 'AA+(tha)’. No data that this links to fiscal regimes.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>current</td>
<td>5</td>
<td>Thai fiscal regime has last been revised in 1989 by the government in an effort to make it more attractive for foreign companies. Thai III introduced the royalty rate to a sliding scale to enable commercial production for all sizes of fields. Existing concessionaires willingly applied to be under the new regime.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>current</td>
<td>5</td>
<td>In 1989, Thailand substantially amended and enacted the Petroleum Act No. 4 and the Petroleum Income Tax Act No.4. There were no significant changes in the PA and PITA until 2007, when PA No 6 revised treatment of small fields, marginal fields, and fields with declining production; streamlined approval process; and made other provisions for improvement of investments.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Information is existing on agreement terms, bidding process, etc.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>PTT has a number of Joint Ventures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of</td>
<td></td>
<td></td>
<td>Turnkey contracts are used by PTT, e.g. expansion of refining</td>
</tr>
<tr>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>High degree of integration from upstream to downstream.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Thailand’s oil sector is open to foreign involvement, although foreign companies often work in joint ventures with PTT Exploration and Production (PTTEP), PTT’s upstream subsidiary.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>No competition in midstream. Pipelines are run by PTT subsidiaries.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Joint ventures seem to be successful.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>Multiple banks, funds and private owners hold shares of PTT. PTT was partially privatized in 2001, raising $833 million in an initial public offering. There were attempts to de-list PTT because of alleged conflicts of interest and inadequate public hearings.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007</td>
<td>1</td>
<td>Good involvement internationally. In 2007, BOD established a PTT International Co. to invest in natural gas, energy and related business through joint investment with domestic and foreign partners.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>Sponsors many social, and community, sport programs. One of the major investment projects is the establishment of the Research and Development Center, worth US$40 million, which will be the first national petroleum research and development center of the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>No independent regulator exists.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007</td>
<td>2</td>
<td>“The company was created as the Petroleum Authority of Thailand (PTT) in 1978 and continued strong development of the sector's pipeline, refinery and by 1988 expanded to include 4 major natural gas fields (which were operated by Unocal). Original privatization was planned for 1999, but took place in 2001. With the support of the government and one of the region's strong economies, PTT is the strongest player in the country and one of the prime players in the region.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2007</td>
<td>2</td>
<td>See above. The NOC sponsors several social, community, and sport programs. One of the major investment projects is the establishment of the Research and Development Center, worth US$ 40 million, which will be the first national petroleum research and development center of the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2007</td>
<td>2</td>
<td>$1,964.03</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>2007</td>
<td>2</td>
<td>$12.09</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>2007</td>
<td>2</td>
<td>$3,123.11</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007</td>
<td>2</td>
<td>Sufficient information is available.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>2</td>
<td>“The company was created as the Petroleum Authority of Thailand (PTT) in 1978 and continued strong development of the sector's pipeline, refinery and by 1988 expanded to include 4 major natural gas fields (which were operated by Unocal). Original privatization was planned for 1999, but took place in 2001. With the support of the government and one of the region's strong economies, PTT is the strongest player in the country and one of the prime players in the region.”</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Thailand is a net importer of oil and natural gas. Management and capitalization of PTT are clearly being done so as to support outbound investments, an Asian phenomenon. Thailand's own political stability, while it does not appear to have impacted PTT or its strategies as yet, could undermine the company's soundness. The company's own ratings may be supporting the country's overall international position to some extent (PTT's local currency ratings are better than the country's).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>10,630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>7,555</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>9.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>461.00</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>11,653.84</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>2,470.28</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>----------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
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<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>18.66%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.86%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>49.42%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
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## Sources of Information

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<th>Year of Source</th>
<th>Source Description</th>
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**Vietnam: Petrovietnam**

**Corporate Governance Highlights**

**Corporate Organization and Ownership**
Vietnam Oil and Gas Corporation (PetroVietnam) covers all operations from oil and gas exploration and production to storage, processing, transportation, distribution and services.

**Shares Controlled by Government**
Petrovietnam is wholly owned by the government of Vietnam and is responsible for all oil and gas resources in the country.

**Domestic, International Exchanges for Equity Listings**
Some of its subsidiaries are quoted on the Ho Chi Minh stock exchange.

**Board of Directors Structure**
The Board of Directors of Petrovietnam comprises 7 members, including a Chairman and 6 members. All the members of the Board are appointed by the Prime Minister.

**Independent Board Members**
All members are appointed by the Prime Minister. Given political organization in the country, it is likely that approval of the chairman resides with the Politburo.

Is chairman also minister of energy or otherwise appointed by head of state?
Appointed by Prime Minister.

**Operations Highlights**

**Upstream Oil**
Upstream operations are carried out based on petroleum contracts signed with the Vietnam Oil and Gas Corporation.

**Midstream Oil**
Petrolimex, a unit of Petrovietnam, is the primary company charged with importing petroleum products, accounting for about 60 percent of the country’s imports. Petrolimex also operates 300 miles of petroleum product pipelines, although much of the country’s fuel supply is transported by road.

**Downstream Oil**
Having no refineries, Vietnam imports all its oil products. However, construction of the Dung Quat refinery is underway and the Nghi Son refinery is in planning stage.

**Upstream Natural Gas**
Petrovietnam dominates the natural gas sector. Petrovietnam’s main foreign partners involved in the production and development of natural gas resources are BP, Chevron, ConocoPhillips, KNOC, Petronas, Thailand’s PTTEP, and Talisman. Most natural gas production in Vietnam is processed and then sent directly to industrial and power sector end-users, such as the Phu My power complex.

**Midstream Natural Gas**
The Rang Dong – Bach Ho, Nam Con Son, PM3-Ca Mau Gas pipeline system provided 6.09 million cubic meters of gas; 270,000 tons of condensate and 308,000 tons of LPG, satisfied production of 40 percent of electricity output, 30 percent of fertilizer demand, and 40 percent of LPG of the whole country. 2007 recorded the first success of PV group in operating Phu My Nitrogenous Fertilizer plant with volume of 767 thousand tons of urea, equivalent to 103.7% of plant’s capacity. This is the first time that the plant produced over the designed capacity since it went to operation.

**Downstream Natural Gas**
For downstream activities, several government-owned companies, such as Petrolimex and Petec, under the Ministry of Trade, PetroVietnam Trading Company (Petechim) under PetroVietnam, SaigonPetro under Ho Chi Minh City People’s Committee and Vinapco, under Vietnam Airlines, have been licensed to import oil and gas.

**Other**
Vietnam is a growing consumer and exporter of liquefied petroleum gas (LPG).
### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>600</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>6,800</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>44</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>106</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
</tr>
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### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>11,400</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>No data</td>
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### Categorization Indicators

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<tr>
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<tr>
<td>Corporate Governance</td>
<td>38</td>
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<tr>
<td>Public Sector Governance</td>
<td>52</td>
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<tr>
<td>Commercialization</td>
<td>67</td>
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<tr>
<td>Fiscal Regimes</td>
<td>50</td>
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<tr>
<td>Resource Endowment</td>
<td>1</td>
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<tr>
<td>Oil Dependency</td>
<td>97</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>54</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>57</td>
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<tr>
<td>Average</td>
<td>51</td>
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### Worldwide Governance Indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>PetroVietnam</th>
<th>Average NOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
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</table>

### Trends and Issues

The hydrocarbon sector is a key component in Vietnam's economy. It plays a vital role in the nation's industrialization, development, energy security, and social life. Vietnam’s oil and gas industry is currently the country's biggest foreign currency earner, and a major procurer of imported technology, services and equipment. Consumption appears to be growing faster than domestic supplies can support. Consequently, the emphasis on outbound investment is likely to grow.
## Database

<table>
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<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
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<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>9</td>
<td></td>
<td>PetroVietnam is the only NOC.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>Current</td>
<td>1, 9</td>
<td>PetroVietnam was established in 1975. With rapid development, PV covers all operations from oil and gas exploration and production to storage, processing, transportation, distribution and services though its numerous subsidiaries and ventures.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>9</td>
<td>Petrovietnam is wholly owned by the government of Vietnam and is responsible for all oil and gas resources in the country. As a result of the 2006 reorganization of the sector, some of its subsidiaries are quoted (for example, Morgan Stanley aquired 10% of PV’s financial arm, PVFC. A total of 12% of PVFC’s share capital was traded as of November 3, 2008).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>Some of its subsidiaries are quoted on the Ho Chi Minh stock exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>Current</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>Current</td>
<td>1</td>
<td>The Board of Directors of PetroVietnam comprises 7 members, including a Chairman and 6 members. All the members of the Board are appointed by the Prime Minister.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>The chairman is appointed by the Prime Minister, and is in principle unaffiliated with the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so,</td>
<td></td>
<td></td>
<td>All members are appointed by the Prime Minister. Given political organization in the country, it is likely that approval of the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Unclear</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2007</td>
<td>2</td>
<td>PetroVietnam appears to set its own investment targets. A certain level of interaction between PetroVietnam and the Politburo has been reported by industry sources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>Investment targets are disclosed and clear.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes, PetroVietnam is currently engaged in partnerships and actively seeking others.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>Current</td>
<td>1</td>
<td>Company materials state that PetroVietnam is vested wholly with the oil and gas resources of the State and charged with the responsibility of value added development.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>Current</td>
<td>1</td>
<td>Except for past (2001-2005) investment targets, financial data is not disclosed. Historical investment targets were strong - approx US$9 billion - and it is unlikely that PetroVietnam would be able to carry out these kinds of commitments without partners.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data.</td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>Current 1</td>
<td>PetroVietnam indicates a number of programs for personnel training and development, as well as specialized institutes (subsidiaries) for R&amp;D in upstream, downstream and information technology segments. They also indicate relationships with undergraduate and graduate education programs at Vietnamese universities and colleges.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>No data.</td>
<td>PetroVietnam only indicates corporate programs in Vietnamese culture and arts, as well as some community development projects.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>No data.</td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>No data.</td>
<td>PetroVietnam is an operator in its home country and participates in E&amp;P investments in large number of countries around the world, including Algeria, Malaysia, and Venezuela. Access to resources in Vietnam is provided through various forms of association and contracts with PetroVietnam.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>No</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>No data.</td>
<td>PetroVietnam operates marine shipping and related logistics for crude oil shipments.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>No data.</td>
<td>No refining capacity exists in Vietnam. All petroleum products are imported.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>No data.</td>
<td>PetroVietnam operates natural gas producing fields and engages in natural gas E&amp;P.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>No data.</td>
<td>PetroVietnam has a natural gas master plan under development, mainly to foster domestic utilization of the resource.</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>No data.</td>
<td>PetroVietnam operates limited natural gas transmission facilities mainly for deliveries of natural gas to industrial and power</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation</td>
<td>Operating Performance Other (power</td>
<td></td>
<td></td>
<td>PetroVietnam is participating in development of gas-fired power generation as a natural gas monetization strategy with investors, including IOCs.</td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Generation customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Operating Performance Avg reserve</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Operating Performance Avg reserve</td>
<td>No data</td>
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<td></td>
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<td>Value Creation</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<tr>
<td>Value Creation</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Operating Performance Change in BOE</td>
<td>No data</td>
<td></td>
<td></td>
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<td>Value Creation</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<tr>
<td>Value Creation</td>
<td>Avg reserve replacement cost ($/BOE)</td>
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<td>Value Creation</td>
<td>Change in BOE reserves (%)</td>
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<td>Value Creation</td>
<td>Operating Performance Avg production</td>
<td>No data</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream operating cash flow up</td>
<td></td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream operating cash flow up</td>
<td>$/BOE</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream exploration and</td>
<td>No data</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream exploration and</td>
<td>$/BOE</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream operating cash flow up</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream exploration and</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream exploration and</td>
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<tr>
<td>Value Creation</td>
<td>Avg production costs excluding</td>
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<tr>
<td>Value Creation</td>
<td>Avg production costs excluding</td>
<td>$/BOE</td>
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<tr>
<td>Value Creation</td>
<td>Avg production costs excluding</td>
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<tr>
<td>Value Creation</td>
<td>Avg upstream after-tax income/revenues</td>
<td>No data</td>
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<td>Value Creation</td>
<td>Avg upstream after-tax income/revenues</td>
<td>$/BOE</td>
<td></td>
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<td>Value Creation</td>
<td>Avg inquiry before interest &amp; taxes</td>
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<td></td>
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<tr>
<td>Value Creation</td>
<td>Avg inquiry before interest &amp; taxes</td>
<td>$/BOE</td>
<td></td>
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<td>Value Creation</td>
<td>Avg inquiry before interest &amp; taxes</td>
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<td>Value Creation</td>
<td>Avg inquiry before interest &amp; taxes</td>
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<td>Avg inquiry before interest &amp; taxes</td>
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<td>Avg inquiry before interest &amp; taxes</td>
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<td>Value Creation</td>
<td>Avg inquiry before interest &amp; taxes</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td></td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
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<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>46%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>Current 8</td>
<td>Oil and gas is one of the top priority sectors for development by the Vietnamese government since it is viewed as a key to national economic growth and energy security. In 2006, the Ministry of Industry and the Ministry of Trade emphasized the economic role of PetroVietnam as one of the four leading industrial groups in the country.</td>
<td></td>
</tr>
</tbody>
</table>

Other Factors | Public Sector Governance | Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest | | The petroleum sector is under the supervision of the Ministry of Industry and Trade. The legal and regulatory framework outlines the roles of the Ministry, the regulatory agencies and PetroVietnam. In practice, there appears to be a certain overlap of responsibilities and weak control mechanisms. |
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td>No data.</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>Vietnam is not a candidate country for EITI. Other transparency programs do not appear to operate in the country.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Vietnamese oil and natural gas reserves have both grown, but indications are that the country's growth in demand for these resources is outstripping domestic supply. The fiscal regime appears to be competitive relative to Vietnam's resource endowments.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>The Vietnamese have revised fiscal terms twice, in 2000 and 2006 to try to increase participation. While the country's resource endowments are healthy by regional standards, they are small by international standards. The government and PetroVietnam appear to recognize this constraint and to be responding accordingly.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>The Petroleum Law was revised in 2000 and 2006 as indicated above to increase competitive bidding.</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>PetroVietnam</td>
<td>PetroVietnam provides terms and conditions for how investors must bid and subsequently license blocks for participation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>JVs are numerous. Terms for PetroVietnam are not transparent but it is clear that PV must be a partner.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>Both PV and its partners manage turnkey contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>PV is vertically integrated.</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>The upstream sector mainly consists of diverse NOC partners from the Asia-Pacific region. PetroVietnam is seeking to attract more IOC partners.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Upstream competition has been vigorous but has not met government expectations. PetroVietnam must be a partner.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>PetroVietnam has a variety of partners for its midstream businesses but these do not appear to be obtained through open bidding.</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
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<td></td>
<td>Existing partnerships appear to be successful and, as stated earlier, PetroVietnam is seeking additional IOC participation.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
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<td>None</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>The ventures in Algeria and Malaysia appear to be sound.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>PetroVietnam sticks closely to its core businesses.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>No separate regulator appears to exist.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>Government administration of energy fuels and services in Vietnam appears to be fairly strong.</td>
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<td>Year of Source of Data</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>No data.</td>
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<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>It is not clear the extent to which fuel subsidies are used.</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
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<td></td>
<td>No data.</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
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<td>No data.</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
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<td>$518.18</td>
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<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
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<td>Descriptive data is abundant. Operating (volumetric) and financial data are quite poor.</td>
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<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
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<td></td>
<td>PetroVietnam has existed for more than 30 years and appears to be firmly in place.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>The hydrocarbon sector is a key component in Vietnam's economy. It plays a vital role in the nation's industrialization, development, energy security, and social life. Vietnam's oil and gas industry is currently the country's biggest foreign currency earner, and a major procurer of imported technology, services and equipment. Consumption appears to be growing faster than domestic supplies can support. Consequently, the emphasis on outbound investment is likely to grow.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
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<td>22,000</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
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<td>2,849</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>27.77</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
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<td>3.66%</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<td></td>
<td>2.81%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
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<td>3,410.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>7,769.23</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>4,749.52</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Audited</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>------------------------</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>71.80%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>99.96%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>136.78%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
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<td>No</td>
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### Sources of Information

<table>
<thead>
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<th>Year of Source</th>
<th>Source Description</th>
<th>Links</th>
</tr>
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<td>5</td>
<td>Current</td>
<td>Coordinating Committee for Geoscience Programmes in East and Southeast Asia</td>
<td><a href="http://www.ccop.or.th/epf/vietnam/vietnam_terms.html">http://www.ccop.or.th/epf/vietnam/vietnam_terms.html</a></td>
</tr>
</tbody>
</table>
The NOCs in Europe and Central Asia
### Corporate Governance Highlights

**Corporate Organization and Ownership**  
SOCAR is incorporated in Azerbaijan Republic

**Shares Controlled by Government**  
100%

**Domestic, International Exchanges for Equity Listings**  
None

**Board of Directors Structure**  
No BOD exists for SOCAR.

**Independent Board Members**  
Not applicable

**Is chairman also minister of energy or otherwise appointed by head of state?**  
Not applicable

### Operations Highlights

**Upstream Oil**  
Operates solely in the country and has sole access to resources.

**Midstream Oil**  
SOCAR has 708 km of oil pipelines; 14 storage facilities with 417,000 m³ of capacity; an oil export terminal; operations in Azerbaijan, Georgia and Turkey (25% in BTC); and an oil tanker fleet.

**Downstream Oil**  
Operates 2 refineries

**Upstream Natural Gas**  
Operates both onshore and offshore, participates in PSAs.

**Midstream Natural Gas**  
No data

**Downstream Natural Gas**  
No data

**Other**  
No data

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>66</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>222</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>50</td>
</tr>
</tbody>
</table>

### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>-1,171</td>
</tr>
</tbody>
</table>
Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>47</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>55</td>
</tr>
<tr>
<td>Commercialization</td>
<td>75</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>75</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>3</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>36</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>31</td>
</tr>
<tr>
<td>Average</td>
<td>48</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Azerbaijan is a resource rich Caspian country in a geopolitically sensitive region. By all accounts, substantial oil and gas endowments exist. Challenges remain with respect to oil and natural gas export transit routes, environmental issues in the Caspian Sea region, and internal and regional geopolitics.
### Database

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Query</th>
<th>Year of Source</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>State Oil Company of Azerbaijan Republic (SOCAR) is the sole NOC.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td>SOCAR is incorporated in Azerbaijan Republic</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>100</td>
<td></td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td>Activity is defined by the decrees and orders issued by the President of Azerbaijan Republic, decisions and orders of the Ministers Council of Azerbaijan Republic, and other normative acts.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No data</td>
<td></td>
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</tbody>
</table>
### Indicator Category: Corporate Governance

<table>
<thead>
<tr>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
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</thead>
<tbody>
<tr>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>SOCAR’s budget authority is very low. General decision making flows through the president and government.</td>
</tr>
<tr>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>The company’s budget process is inseparable from government; and the budget process is unpredictable.</td>
</tr>
<tr>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>Yes. By the decree of the government, the company’s mission is defined as follows: “The main purpose of the Company includes the development, exploring and processing of oil gas fields, including both the shore and offshore areas, the transportation of oil, gas and condensate and the products received of them, processing and sale, the reliable meeting the needs of consumers in the corresponding energy carriers, carrying out of other kinds of activity and obtaining of profits.”</td>
</tr>
<tr>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No audited data</td>
</tr>
<tr>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2007</td>
<td>29.8% management</td>
</tr>
<tr>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td>Promotion policies appear adequate.</td>
</tr>
<tr>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>The company reports activities without details</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------</td>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country’s resources?</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<td>No data</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
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<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
</tr>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------------------</td>
<td>-----------------------</td>
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<td>------------------------</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>-358%</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>1</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>1</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>7</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008 3,4,5,6</td>
<td>Azerbaijan is a candidate country for EITI. A group of NGOs is independently monitoring the EITI implementation. Transparency International operates in the country via its Berlin office and National Democratic Institute has a long-established presence.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>Judging by the high level of interest in Azerbaijan and the significant amount of foreign investment, the fiscal regime would seem adequate.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves Hydrocarbon law to facilitate competitive upstream investment</td>
<td>Does not exist</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>Most investment takes place in the form of PSAs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy Based on available information, types of joint ventures, role of NOC(s)</td>
<td>SOCAR participates mostly through PSAs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration Vertical, horizontal integration</td>
<td>A vertically integrated company.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------</td>
<td>------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes, many private companies participate in the upstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Low. SOCAR is a party to all ventures and controls all resource distribution.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Very low</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>Such alliances are considered to be very successful based on the results of existing Production Sharing Agreements</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>The company has some midstream activity in the region.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>Non-core commercial activities account for less than 5%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>There are no independent agencies. The NOC shares regulatory functions with the Ministry of Industry and Energy.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government, brief description of subsidy program, approach, cost</td>
<td>Such subsidies, estimated at over $500 million annually, are provided by the NOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>The company undertakes some social programs, which are mainly aimed at company employees.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>$2.87</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Some data are reported in great detail, but not under international standards and they are not audited.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>---------------------------</td>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------------</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>47.36%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.98%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>451.48%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
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## Sources of Information

<table>
<thead>
<tr>
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<th>Source Description</th>
<th>Links</th>
</tr>
</thead>
</table>
### Corporate Governance Highlights

**Corporate Organization and Ownership**
100% state-owned company incorporated in the Republic of Belarus. Set up as non-profit organization. Part of the state-owned holding company, Belneftekhim.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
Not applicable

**Independent Board Members**
Not applicable

**Is chairman also minister of energy or otherwise appointed by head of state?**
Not applicable

### Operations Highlights

**Upstream Oil**
Mostly in Belarus, but in Iran, Venezuela and Russia as well. Does not have sole access to resources in Belarus.

**Midstream Oil**
BN operates 45 warehouses for oil products storage with a total volume of 780 MCM.

**Downstream Oil**
Sales of oil and gas products - 425 retail gas stations as well as wholesale activities. Another affiliate of Belneftekhim is a major player in refining

**Upstream Natural Gas**
BN has 1 gas processing facility of 48.356 MMCF/D

**Midstream Natural Gas**
Does not operate

**Downstream Natural Gas**
Does not operate

**Other**
BN operates a 21 MW power plant, machine-building, agriculture.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td>242</td>
<td>232</td>
<td>233</td>
<td>231</td>
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<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
<td>13</td>
<td>13</td>
<td>13</td>
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<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
</tr>
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</table>

### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues($Millions)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td><strong>Consolidated Average Total Assets($Millions)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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</table>
Belarus: Belarusneft

Categorization Indicators

<table>
<thead>
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<th>Categories</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>38</td>
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<tr>
<td>Public Sector Governance</td>
<td>57</td>
</tr>
<tr>
<td>Commercialization</td>
<td>17</td>
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<tr>
<td>Fiscal Regimes</td>
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<tr>
<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
<td>99</td>
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<tr>
<td>Local Contribution</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>11</td>
</tr>
<tr>
<td>Average</td>
<td>35</td>
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</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Belarus is very opaque both politically and with respect to its hydrocarbon sector. The country has aligned itself in interesting ways with other producing/exporting governments that have specific geopolitical agendas. The energy sector in general continues to be dominated by Russian influence with issues such as payment of natural gas deliveries from Russia a key political lever in the relationship.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>PA “Belorusneft” is 100% owned by the government of the Republic of Belarus.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1, 5</td>
<td>100% state-owned company incorporated in the Republic of Belarus. Set up as non-profit organization.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>Appointed by the government</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2008</td>
<td>7</td>
<td>Very low. All operational and financial targets are assigned by the government, as well as volume of various funding allocations to the budget, etc.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>Unpredictable and not separate</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>5</td>
<td>It has a mission statement established by Government decree. Creation of unified system of oil product supply in the Republic; increase in export sales and development of inter-industrial cooperation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>The budget is set up and approved by the Government; same for profit allocations.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008</td>
<td>1</td>
<td>In house healthcare, catering, day care, resorts, etc. Does not report details.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>1</td>
<td>Mostly in Belarus, but in Iran, Venezuela and Russia as well. Does not have sole access to resources in Belarus.</td>
</tr>
</tbody>
</table>
## Belarus: Belarusneft

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>1</td>
<td>BN operates 45 warehouses for oil products storage with a total volume of 780 MCM.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>1, 4</td>
<td>Sales of oil and gas products - 425 retail gas stations as well as wholesale activities. State-owned Belneftekhim is a major player in refining</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>1</td>
<td>BN has 1 gas processing facility of 48.356 MMCF/D</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>Does not operate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>Does not operate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>1</td>
<td>BN operates a 21 MW power plant, machine-building, agriculture.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>$8.66</td>
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<td>Value Creation Metrics</td>
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<td>Avg production costs excluding production taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<td>Value Creation Metrics</td>
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<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>Avg income after all taxes ($/BOE)</td>
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<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs. costs incurred (%)</td>
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<td>After tax return on assets</td>
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<td>Value Creation Metrics</td>
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<td>Avg refinery utilization rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>15%</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
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<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Avg pre-tax return on assets (%)</td>
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<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<td>Avg reinvestment risk (%)</td>
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<td>Avg debt profile (%)</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2006</td>
<td>12</td>
<td>The hydrocarbon sector is tasked with securing sufficient supply of oil &amp; gas to meet domestic needs.</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>Roles defined in the decrees and ordinances of the Council of Ministers. The role of Belarusneft is clearly separated from the policy and regulatory functions, some of which is held by the parent holding company, Belneftekhim.</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
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<td></td>
<td>See mission statement above</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>Not disclosed</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
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<td>No data.</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>Belarus is not a candidate country or supporter of EITI. Transparency International operates through the Berlin office. No other major transparency program appears to be active in the country.</td>
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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>No</td>
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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>Fiscal regime is unpredictable</td>
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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>Fiscal regime is rather appropriate for resource development, yet dependence on Russian oil supply and lack of alternatives puts additional pressure on the company.</td>
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<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>None</td>
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<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>None</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Horizontal</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2008</td>
<td>1 Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>None</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>0</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Very limited - Russian Slavneft owns 50% of one refinery</td>
<td></td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>Not applicable</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>0</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Exploration in Iran and Venezuela; service contracts in Russia</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>Absent</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>Yes - allocation of finances for general and administrative expenses are tied up to profitability</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>Not applicable</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
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<td>Other Factors</td>
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<td>Measure of NOC employees relative to total assets ($ M)</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
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<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
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<td>Virtually non-existent</td>
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<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1 Belorusneft was created in 2006.</td>
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<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
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<td>Belarus is very opaque both politically and with respect to its hydrocarbon sector. The country has aligned itself in interesting ways with other producing/exporting governments that have specific geopolitical agendas. The energy sector in general continues to be dominated by Russian influence with issues such as payment of natural gas deliveries from Russia a key political lever in the relationship.</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
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<td>7,900</td>
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Belarus: Belorusneft
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>1,689</td>
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<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>1.63%</td>
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<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<td>Avg EOY oil reserves (MM Barrels)</td>
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<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
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<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>92.29%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.99%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>7.78%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>1</td>
<td>2008</td>
<td>Company web-site</td>
<td><a href="http://www.beloil.by">www.beloil.by</a></td>
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<td>4</td>
<td>2008</td>
<td>Belneftekhim web-site (rus)</td>
<td><a href="http://www.belneftekhim.by/ru/about/">http://www.belneftekhim.by/ru/about/</a></td>
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<td>7</td>
<td>Current</td>
<td>Transparency International (operated through Berlin)</td>
<td><a href="http://www.transparency.org/regional_pages/europe_central_asia/contact">http://www.transparency.org/regional_pages/europe_central_asia/contact</a></td>
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<td>8</td>
<td>2002</td>
<td>Eastern Europe, Russia and Central Asia, Europa Publications/Taylor &amp; Francis</td>
<td><a href="http://books.google.com/books?id=EPP3ti4hysUC&amp;pg=P">http://books.google.com/books?id=EPP3ti4hysUC&amp;pg=P</a> A164&amp;lpg=PA164&amp;dq=belarusneft+employees&amp;source=web&amp;ots=qph1.dk1lyPU&amp;sig=ui4pg4jzvsvyoys1bd7yjpkfg&amp;hl=en&amp;sa=X&amp;oi=book_result&amp;resnu m=1&amp;ct=result#PPA164,M1</td>
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<td>11</td>
<td>2006</td>
<td>News item (rus)</td>
<td><a href="http://liberty-belarus.info/content/view/750/46/">http://liberty-belarus.info/content/view/750/46/</a></td>
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### Corporate Governance Highlights

**Corporate Organization and Ownership**
Gaz de France is a société anonyme (joint-stock company) with a Board of Directors.

**Shares Controlled by Government**
80.2%

**Domestic, International Exchanges for Equity Listings**
Euronext (France)

**Board of Directors Structure**
The Board consists of 18 members: six directors appointed by General Shareholders’ Meeting; six representatives of the French State appointed by decree; and six employee representatives elected by the personnel of the company.

**Independent Board Members**
No

*Is chairman also minister of energy or otherwise appointed by head of state?*
No

### Operations Highlights

**Upstream Oil**
Reserves are primarily in the North Sea, Germany and North Africa, including reserves in fields operated directly by Gaz de France.

**Midstream Oil**
Does not operate

**Downstream Oil**
Does not operate

**Upstream Natural Gas**
Mostly international

**Midstream Natural Gas**
The company operates 31,600 km of pipelines, 15 storage facilities with 9.5 bcm of capacity, and is the number one natural gas supplier in France and one of the leading natural gas suppliers in Europe. It has shares in both regas and LNG terminals worldwide.

**Downstream Natural Gas**
GDF operates over 185,000 km of distribution pipelines, produces 8,000 B/D of NGL.

**Other**
Owns the Shotton plant (215 MW) in the United Kingdom, DK6 (788 MW) in France, and interests in SPE (approximately 1,600 MW) in Belgium and AES Cartagena (1,200 MW) in Spain.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Metric</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>173</td>
<td>173</td>
<td>173</td>
<td>173</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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</tr>
</tbody>
</table>

### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Metric</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>28,603</td>
<td>28,603</td>
<td>28,603</td>
<td>28,603</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>47,750</td>
<td>47,750</td>
<td>47,750</td>
<td>47,750</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>3,152</td>
<td>3,152</td>
<td>3,152</td>
<td>3,152</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>2,184</td>
<td>2,184</td>
<td>2,184</td>
<td>2,184</td>
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</table>
Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
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<tr>
<td>Corporate Governance</td>
<td>97</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>100</td>
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<tr>
<td>Commercialization</td>
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<tr>
<td>Fiscal Regimes</td>
<td>88</td>
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<tr>
<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
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<tr>
<td>Local Contribution</td>
<td>95</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>73</td>
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<tr>
<td>Average</td>
<td>80</td>
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</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

France is a net oil and natural gas importer. GDF works to secure critical natural gas supplies for the nation as well as to leverage its competencies in the international arena as a large and prominent midstream and downstream player. The major issues for France - and the Western European continent in general - are energy security related. In particular, the governments have long been sensitive to dependence on limited suppliers for natural gas (Russia, Algeria) and GDF is working to expand LNG options. GDF is mainly focused on re-gasification and supply procurement; the much debated acquisition of SUEZ is a component of the overall strategy.
## France: Gaz de France (GDF)

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<tbody>
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<td><strong>Indicator Category</strong></td>
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<td>Value Creation Metrics</td>
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</tbody>
</table>
| Other Factors           | Public Sector Governance                       | Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives | 2006                   | 6      | "France has very limited energy reserves. In this context, meeting France's energy needs involves a risk that should be managed. In macroeconomic terms, the aim is to limit the exposure of our economy to fluctuations in energy prices, in particular by developing domestic production. In terms of physical supplies, the aim is to ensure the availability of sufficient capacity to cope with the problems of shortages of electricity (capacity and availability of generation plants, transmission quality and interconnection level), gas (management of stocks) and oil (management of security stocks)."
<p>| Other Factors           | Public Sector Governance                       | Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts | 2006                   |        | Clearly defined |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>“…to provide its customers with competitive energy and services, to become the benchmark infrastructure operator in Europe, to be a committed player in sustainable development, to create value for its shareholders.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>Public accounts are disclosed on the website of the Ministry of Finance. Given its limited importance, revenue derived from petroleum sector taxation is not segregated in budget documents.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>France supports EITI.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Seem to be adequate</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>Aa1 - Moody’s</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>Not applicable given France’s small resource endowment.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>“Code Minier” (Mining Code)</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>Numerous JV's worldwide - primarily in midstream</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>High - no requirement</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>High - no requirement</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>Minor role, mostly successful</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>19.8%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007 1</td>
<td>Production in 5 countries: UK, Germany, Norway, Netherlands, Ivory Coast; Exploration in 9 countries (see production + Egypt, Algeria, Nigeria, Denmark, Mauritania). Manages 1 distribution company in Hungary and one of Romania's 2 principal distribution firms, Distrigaz Sud. The Group also has stakes in gas distribution firms in Italy, Germany, Portugal, Slovakia, etc. Outside Europe, Gaz de France owns distribution subsidiaries in Mexico. Holds 10% in Petronet LNG.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>Insignificant - less than 1%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007 3</td>
<td>CRE (Commission de Régulation de l'Énergie) is an independent regulative authority in the gas and electricity sector. The Minister of Energy also has powers of oversight and the right to impose fines etc.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>Yes - especially in light of recent EU legislation</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tbody>
</table>
| Other Factors      | Regulation            | Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators | 2008 | 5 | "The autonomy of CRE is guaranteed by article 35 of the law of 10 February 2000, which requires agents and members of the CRE to act with complete impartiality and proscribes any instruction from the government or a third party."
| Other Factors      | Regulation            | Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy | 2008 | 5 | "The concerned parties (except non-eligible customers) may refer any dispute relating to access to public transmission or electricity distribution grids, transmission of natural gas distribution networks and LNG or natural gas storage facilities to CRE. After a due process investigation, and a possible inquiry, the Commission will decide within 2 months (or longer if necessary) on the settlement of disputes. A request for protective measures may simultaneously be submitted to it. Its decisions may be contested before the Court of Appeal in Paris, which may order an enforcement stay."
<p>| Other Factors      | Non-commercial Objectives | Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost | 2008 | 5 | Not applicable |
| Other Factors      | Non-commercial Objectives | Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support | 2008 | 5 | Not applicable |
| Other Factors      | Non-commercial Objectives | Measure of NOC employees relative to total assets ($ M) | 2008 | 5 | $1,013.87 |
| Other Factors      | Non-commercial Objectives | Compensation obligations relative to workforce ($ M) | 2008 | 5 | $62.13 |
| Other Factors      | Non-commercial Objectives | Financial performance relative to workforce ($ M) | 2008 | 5 | $607.32 |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
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<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007</td>
<td>1</td>
<td>Mazars &amp; Guérard and E&amp;Y; DeGolyer &amp; McNaughton certified 98% of reserves in past 3 years; One third of reserves certified annually by independent, external audit; reports according to IFRS.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>3</td>
<td>Founded in 1946</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>France is a net oil and natural gas importer. GDF works to secure critical natural gas supplies for the nation as well as to leverage its competencies in the international arena as a large and prominent player. The major issues for France - and the Western European continent in general - are energy security related. In particular, the governments have long been sensitive to dependence on limited suppliers for natural gas (Russia, Algeria) and GDF is working to expand LNG options. GDF is mainly focused on regasification and supply procurement; the much debated acquisition of SUEZ is a component of the overall strategy.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
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<td>47,097</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
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<td>949</td>
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<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>10.66</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>-12.00%</td>
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<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<td></td>
<td>-3.19%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
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<td>122.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>300.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>173.72</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Unaudited</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td>No</td>
<td></td>
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### Sources of Information

<table>
<thead>
<tr>
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<th>Year of Source</th>
<th>Source Description</th>
<th>Links</th>
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</thead>
</table>
**Corporate Governance Highlights**

**Corporate Organization and Ownership**
Owned by the Republic of Kazakhstan.

**Shares Controlled by Government**
100% in 2006

**Domestic, International Exchanges for Equity Listings**
The E&P affiliate is listed in LSE - GDR, Kazakhstan SE - common stock-2006 (both); KazMunaiGaz owns about 62% of E&P affiliate after IPO.

**Board of Directors Structure**
There are 5 members, serving 3-year terms.

**Independent Board Members**
Yes, 2 out of 5, appointed by the state.

**Is chairman also minister of energy or otherwise appointed by head of state?**
Yes The Chairman is a deputy minister of energy.

**Operations Highlights**

**Upstream Oil**
The company operates solely in the country. The NOC has preferential access rights to resources.

**Midstream Oil**
The company operates oil trunklines. It is also involved in a few international (export) pipeline projects (CPC, Atasu-Alashankou (50%), Kuryk-BTC). Overall the company controls 100% of gas exports and 80% of oil exports; it also operates a tanker fleet.

**Downstream Oil**
The company operates one refinery; produces propane and wide range of distillates; participates in several JVs in greenfield petrochemical facilities (none completed); a Joint Venture in a Russian refinery; operates about 4% out of 3,783 gas stations in the country; co-owns an oil terminal in Georgia.

**Upstream Natural Gas**
The company operates only in the oil sector (the company does not report any natural gas production).

**Midstream Natural Gas**
The company operates 11,000 km of main gas pipelines. It is also involved in an export pipeline project, Intergas Central Asia. It develops and operates gas storage facilities.

**Downstream Natural Gas**
In 2006, the company acquired "Tbilgasi" - NG distribution company in Georgia with 2,414 km of distribution network.

**Other**
To a very small extent, the company is also engaged in power generation, and some unrelated manufacturing activities.

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Performance</th>
<th>2004-2007: not all years or data reported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream</strong>: Average Proved Oil Reserves (MM Barrels)</td>
<td>719</td>
</tr>
<tr>
<td><strong>Upstream</strong>: Average Proved Gas Reserves (BCF)</td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Upstream</strong>: Average Annual Oil Production (MM Barrels)</td>
<td>68</td>
</tr>
<tr>
<td><strong>Upstream</strong>: Average Annual Natural Gas Production (BCF)</td>
<td>No data.</td>
</tr>
<tr>
<td><strong>Downstream</strong>: Average Annual Refinery Production (MM Barrels)</td>
<td>23</td>
</tr>
</tbody>
</table>

**Financial Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Financial Performance</th>
<th>2004-2007: not all years or data reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues($Millions)</td>
<td>6,989</td>
</tr>
<tr>
<td>Consolidated Average Total Assets($Millions)</td>
<td>10,593</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>2,425</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>1,193</td>
</tr>
</tbody>
</table>
Categorization Indicators

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<th>Categories</th>
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<td>63</td>
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<td>48</td>
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<td>Commercialization</td>
<td>83</td>
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<td>Fiscal Regimes</td>
<td>75</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>10</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>74</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>-63</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>28</td>
</tr>
<tr>
<td>Average</td>
<td>59</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Kazakhstan is the largest oil producer in Central Asia, and a target for export development. The country and its companies are under increasing international scrutiny for gas flaring, transparency and other concerns. The entry of China into Central Asia development activity poses additional challenges.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2007</td>
<td>1</td>
<td>A holding company, Samruk, holds all state shares in state companies; it also owns KazMunaiGaz (KMG), which in turn owns affiliates in different sectors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td>Owned by the Republic of Kazakhstan.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100% in 2006</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>The E&amp;P affiliate is listed in LSE - GDR, Kazakhstan SE - common stock-2006(both); KazMunaiGaz owns about 62% after IPO</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008, 2007</td>
<td>2, 6</td>
<td>Only KMG E&amp;P</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2007</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
<td>5</td>
<td>5 members/3 years</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>5</td>
<td>Yes, 2 out of 5 at least nominally, appointed by the sole shareholder</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>5</td>
<td>3 years</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td>All major functions (strategy, senior appointments, remunerations, budgeting, audit)</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>Yes, but dominated by the representatives of the State</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>BOD approves appointments.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>The decision flow is dominated by the state.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>There is little predictability. The process is not separate from government.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes, the company can partner through JVs and such, including international operations.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>3</td>
<td>&quot;Providing maximum benefits to the Republic of Kazakhstan by participation in development of national oil and gas industry&quot;; Increase in company's capitalization; improvement of financial indicators; increase in company's reserves and production; improvement of management system in the company&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>The company reports under Kazakh accounting guidelines</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td>KMG E&amp;P is more developed, has share-option plan, and extended training programs.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>The company reports none as objectives, but discloses some costs and activities, albeit not in much detail.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>-------------------------</td>
<td>------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>Rather significant</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>The company operates solely in the country; and has preferential access rights to resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes but not in upstream.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007 1</td>
<td>1</td>
<td>The company operates oil trunklines. It is also involved in a few international (export) pipeline projects (CPC, Atasu-Alashankou (50%), Kuryk-BTC). All in all the company controls 100% of gas exports and 80% of oil exports; also has a tanker fleet.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007 1</td>
<td>1</td>
<td>Operates one refinery; produces propane and wide range of distillates; participates in several JVs in greenfield petrochemical facilities (none completed); a JV in a Russian refinery; operates about 4% out of 3783 gas stations in the country; co-owns oil terminal in Georgia.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>The company operates in the oil sector only.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007 1</td>
<td>1</td>
<td>The company operates 11,000 km of main gas pipelines. It is also involved in an export pipeline project, Intergas Central Asia, and develops and operates gas storage facilities.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008 3</td>
<td>2</td>
<td>In 2006, the company acquired &quot;Thigasi&quot; - NG distribution company in Georgia with 2,414 km of distribution network.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008 2</td>
<td>2</td>
<td>The company has very little of power generation, and some unrelated manufacturing activities</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>2007 11</td>
<td>11</td>
<td>0%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>237%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>$10.45</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>$20.59</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>$8.62</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>17%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>610%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>610%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>163%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2004 (2006) 10</td>
<td>Functions and rights of the Ministry are well defined and detailed.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>See mission statement</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>Not present</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>The National Fund of the Republic of Kazakhstan was created in 2000 as a stabilization fund that ensures the economy of the Republic of Kazakhstan will be stable against the price swings of oil, gas, and metals. The assets of the National Fund assets are monitored by the National Bank of the Republic of Kazakhstan. The Ministry of Finance’s website publishes reports on accumulation and withdrawals from the Fund. A Managing Council, presided over and appointed by the President of the Republic of Kazakhstan, defines the policies and oversees the functioning the Fund.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008 12, 13</td>
<td>Kazakhstan is a candidate country for EITI, and has until 9 March 2010 to complete the validation process.</td>
<td></td>
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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Yes, the fiscal regime appears to be attractive for investors notwithstanding recent amendments that raised government take.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>KMG E&amp;P has a BB+ rating from S&amp;P</td>
<td></td>
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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>Yes, according to industry sources.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006 9</td>
<td>The major laws are the Law on Petroleum, dated June 28, 1995 and the Law on the Subsoil and Subsoil Use, dated January 27, 1996. KMG has preferential rights in resource allocation and influences the decision-making process. Recent amendments require mandatory use of Kazakh employees, suppliers and service providers.</td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Most investment takes place via PSAs.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>206</td>
<td>9</td>
<td>Mandatory participation of KazMunaiGaz in offshore project with a minimum share of 50%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>Vertically integrated</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>Yes, the influence of KMG is significant</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>6</td>
<td>KMG is the second largest oil producer in the country. There are 6 mid-size E&amp;P companies and a number of smaller ones, yet KMG has a dominant role. &quot;KMG E&amp;P has the right of first refusal on the acquisition of existing onshore oil and gas assets, access to new oil and gas acreage and guaranteed access to pipeline infrastructure. KMG E&amp;P is the only company in Kazakhstan that has these advantages.&quot; There is a mandatory participation of KMG at a minimum of 50% in all ventures since 2002. Since 2005, KMG has priority buy-back rights of any assets.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>The level of competition is very low, except for the retail segment.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Very successful until recently due to tightened regulation and legislation</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>Very limited; the company operates mainly in Georgia</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>KMZ has a number of social projects, yet no quantitative details reported</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>The Ministry shares regulatory function with KMG; there is no independent regulator.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>Only to a certain extent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>Based on recent conflicts in the industry, disputes are not always resolved effectively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Energy fuel subsidies are substantial and financed through petroleum export earnings, given the dominance of petroleum revenues in the Kazakh economy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2007</td>
<td>1</td>
<td>The company spent about $1 billion on social programs in 2002-2005 (sponsorship of various activities, transport infrastructure, housing, kindergartens, hospitals, sports facilities, and so on.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$311.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>$12.57</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$205.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Very limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>KMG E&amp;P was created in 2004. KMG was created in 2002 by the decree of the President.</td>
<td></td>
<td></td>
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<tr>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Kazakhstan is the largest oil producer in Central Asia, and a target for export development. The country and its companies are under increasing international scrutiny for gas flaring, transparency and other concerns. The entry of China into Central Asia development activity poses additional challenges.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>34,000</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td></td>
<td>2,664</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
<td>72.42</td>
</tr>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>54.05%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>26.15%</td>
</tr>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>39,828.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td></td>
<td>67,203.26</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>51,414.77</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
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<td>No data.</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery</td>
<td></td>
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<td>No data.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>77.46%</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.97%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>354.66%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>No</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

<table>
<thead>
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<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
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<tbody>
<tr>
<td>3</td>
<td>2008</td>
<td>Company's web-site (rus)</td>
<td><a href="http://www.kmg.kz/rus/">http://www.kmg.kz/rus/</a></td>
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<tr>
<td>12</td>
<td>2008</td>
<td>EITI - Kazakhstan (country web site not available)</td>
<td><a href="http://eitransparency.org/Kazakhstan">http://eitransparency.org/Kazakhstan</a></td>
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<td>13</td>
<td>2008</td>
<td>Transparency International (through Berlin office)</td>
<td><a href="http://www.transparency.org/regional_pages/europe_central_asia/contact">http://www.transparency.org/regional_pages/europe_central_asia/contact</a></td>
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</tbody>
</table>
**Corporate Governance Highlights**

**Corporate Organization and Ownership**
StatoilHydro is an integrated oil and gas company organized as a public limited liability company. In a 2001 decision the Storting (Norwegian Congress) required that the Norwegian state must continue to own two-thirds of StatoilHydro.

**Shares Controlled by Government**
Currently the Norwegian government owns 62.5% of StatoilHydro (SH) which ownership interest is managed by the Ministry of Petroleum and Energy. The government plans to increase its ownership interest to 67% over time.

**Domestic, International Exchanges for Equity Listings**
Oslo Stock Exchange and New York Stock Exchange.

**Board of Directors Structure**
The Annual General Meeting (AGM) of shareholders is the company's supreme body. It elects the shareholder's representatives to the Corporate Assembly (CA), elects the Nomination Committee, elects the external auditor and approves all financial reports. The Nomination Committee has 3 independent members and the Director General of the Ministry of Petroleum and Energy. It recommends individuals to be considered for the CA and the BOD. The Corporate Assembly has 20 members: 12 are elected by the shareholders and 8 are employee representatives elected by employees. The CA elects the BOD. The BOD has 10 members and there are no company representatives other than three employee members. The other 7 BOD members are independent. The BOD appoints the President and Chief Executive Officer of the company.

**Independent Board Members**
Seven out of 10 are independent and nominated by the Nomination Committee.

**Is chairman also minister of energy or otherwise appointed by head of state?**
No

### Operations Highlights

**Upstream Oil**
In 2007 SH reported proven domestic oil reserves of 1,604 million barrels of oil, down 4% from 2006, and accounting for 20% of Norway's oil reserves. 74% of SH's oil reserves are proved developed. SH reported domestic oil production of 299 million barrels for 2007, down 5% from 2006, and accounting for 32% of Norway's oil production. Foreign and private companies compete with Statoil and partnership with Statoil is not required. Large private oil producers include ConocoPhillips, ExxonMobil and BP. SH is increasingly focusing exploration to unexplored areas of the Norwegian Sea and Barents Sea. SH is a net exporter of oil primarily to the UK and European markets.

**Midstream Oil**
Norway has 2,444 kilometers of oil pipelines. There is a large network of subsea oil pipelines SH operates the Oseberg Transportation System (765,000 B/D) in which they have a 36.2% interest including the Sture crude oil terminal. It also operates the 265,000 B/D Grane pipeline and the twin Troll I/II pipeline system with capacity of 565,000 B/D.

**Downstream Oil**
SH is the majority owner (79%) and operator of the Mongstad refinery in Norway which has 179 mbbls/d of primary distillation capacity, representing 58% of Norway's total capacity. Shell owns the other 21% of Mongstad. The other major refinery in Norway is operated by ExxonMobil. SH's refinery utilization rate for the three years ended 2007 was 97%. 45% of Mongstad's production goes to Scandinavian markets and 55% is exported to NW Europe and the US. 85% of Mongstad's production is light products including gasoline/naphtha, jet/kero and gasoil. SH also owns and operates the 118 mbbls/d Kalundborg refinery in Denmark which had a three average refinery utilization rate of 91%. 78% of Kalundborg's production is the light product slate mentioned previously supplying markets in Denmark and Sweden. SH has 2,485 service stations in 8 countries. SH has a retail market market share of 30% in Norway, 32% in Sweden, 17% in Denmark, 40% in Estonia and 32% in Latvia.

**Upstream Natural Gas**
SH reported 18.9 TCF in proved Norwegian gas reserves in 2007, accounting for 18% of Norway's gas reserves and 66% of SH's BOE Norwegian reserves. Production was 1.2 TCF, down 1% from 2006. SH production represents 14% of Norway's gas production and 42% of SH's total Norwegian BOE production. SH is a large gas supplier to European markets. Norway is counting on non-North Sea projects (Norwegian Sea and Barents Sea) to provide significant gas production.
**Midstream Natural Gas**

In 2003 all gas pipelines with third party access in Norway were combined in a single joint venture, Gassled with capacity of 4.4 TCF/year. 2007 throughput was 68% of capacity. SH has a 28% interest in Gassled which is operated by Gassco SA, a wholly-owned company of the Norwegian state. Gassco also operates receiving terminals in Europe. The Ministry of Petroleum and Energy sets pipeline tariffs based on operating costs and returns on capital invested. SH is also responsible for the operation, maintenance and further development of two large gas processing plants (capacity of 224 MMCM/D) on behalf of Gassco. SH owns 51% of one of the largest air separation units in Scandinavia as well as 51% of the first Norwegian liquefaction plant at Tjeldbergodden with a capacity of 1.3 BCF. SH developed the Snohvit LNG project (initial capacity 4.1 million tons/yr.) in the Barents Sea that will serve European and US markets. The first LNG shipment from Snohvit took place in 2007. SH will use its capacity rights at the Cove Point LNG regasification plant in Maryland to receive shipments from Snohvit. In late 2007 SH became a 24% equity owner in the Russian Shtokman Development Co. Shtokman is the world's largest undeveloped offshore gas field with gas in place estimates of 131 TCF.

**Downstream Natural Gas**

SH owns 82% of the methanol plant at Tjeldbergodden which produced .70 MMT in 2007.

**Other**

SH is required by the Norwegian government to transport and market the gas production from the state's directly-owned equity interests in producing fields. The government's production accounted for 34% of SH's total marketed production in 2007. As a result, SH markets 80% of all Norwegian Continental Shelf gas. If the government decided to move this function from SH to another entity, the company says it could have a negative impact on their marketing business.

<table>
<thead>
<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
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</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues ($Millions)</strong></td>
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<tr>
<td><strong>Consolidated Average Total Assets ($Millions)</strong></td>
</tr>
<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
</tr>
<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Categorization Indicators</th>
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</thead>
<tbody>
<tr>
<td><strong>Scores:</strong></td>
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<tr>
<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
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<tr>
<td>Commercialization</td>
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<td>Fiscal Regimes</td>
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<tr>
<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<tr>
<td>Local Contribution</td>
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<tr>
<td>Sector and Trade Openness</td>
</tr>
<tr>
<td><strong>Average</strong></td>
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</tbody>
</table>

[Graph showing categorization indicators]
A key consideration for Norway is natural decline in established North Sea fields. SH plans to maintain stable volumes from the Norwegian Continental Shelf over the next few years through a combination of active exploration and effective field management of existing producing assets. It should continue to play a leading role in the European natural gas market. Production growth from international operations is a key component in achieving upstream growth. However, international reserve replacement costs are quite high. SH’s ability to execute mega-projects is still uncertain: Snøhvit LNG project had two cost overruns and there are still operational problems which is negatively impacting stable deliveries. Participation in the Shtokman project is a major undertaking for the company.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2007</td>
<td>1</td>
<td>Since October 2007, StatoilHydro (SH) is the sole oil and gas NOC in Norway; prior to that they were two separate companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>1</td>
<td>4 NOCs. In addition to SH, Petoro SA manages the state’s direct financial interest (SDFI) in producing assets; Gassco SA operates the joint-venture owned gas pipeline system, Gassled, and Gassnova is an agency promoting gas power technology. Petoro, Gassco and Gassnova are 100% government owned.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2007</td>
<td>1</td>
<td>StatoilHydro is an integrated oil and gas company organized as a public limited liability company. In a 2001 decision the Storting (Norwegian Congress) required that the Norwegian state must continue to own two-thirds of StatoilHydro.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1</td>
<td>Currently the Norwegian government owns 62.5% of StatoilHydro (SH) which ownership interest is managed by the Ministry of Petroleum and Energy. The government plans to increase its ownership interest to 67% over time.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>Oslo Stock Exchange and New York Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2007</td>
<td>1</td>
<td>Oslo Stock Exchange and New York Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1</td>
<td>The Annual General Meeting (AGM) of shareholders is the company's supreme body. It elects the shareholder's representatives to the Corporate Assembly (CA), elects the Nomination Committee, elects the external auditor and approves all financial reports. The Nomination Committee has 3 independent members and the Director General of the Ministry of Petroleum and Energy. It recommends individuals to be considered for the CA and the BOD. The Corporate Assembly has 20 members: 12 are elected by the shareholders and 8 are employee representatives elected by employees. The CA elects the BOD. The BOD has 10 members and there are no company representatives other than three employee members. The other 7 BOD members are independent. The BOD appoints the President and Chief Executive Officer of the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
<td>Seven out of 10 are independent and nominated by the Nomination Committee.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2007</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>1</td>
<td>Responsible for overall management of the company. It appoints the company’s President and CEO and terms and conditions of employment. Through the Audit Committee, the BOD ensures the quality and integrity of financial statements, the external auditor and overall company compliance with legal and regulatory requirements. Through the Compensation Committee, the BOD assists with respect to CEO and key executive compensation and devises performance metrics related to company goals.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2007</td>
<td>1</td>
<td>Yes with respect to those duties directly in its purview. The Corporate Assembly supervises the BOD and CEO, makes decisions on matters involving substantial investments and on matters regarding operational restructuring.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2007</td>
<td>1</td>
<td>Generally SH is not required to submit any decisions relating to its operations to the Storting (Congress). However, major plans for operation and development of fields require Storting approval.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007</td>
<td>1</td>
<td>Generally separate from government and predictable.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>1</td>
<td>Maximize value and potential on the Norwegian Continental Shelf (NCS) while growing international production profitably. It includes developing profitable midstream and downstream businesses and creating a new platform for new energy.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2007</td>
<td>1</td>
<td>100% retention of net cash flow after taxes and dividends. SH dividend policy targets a net return to shareholders through cash dividends and share repurchases of 45-50% of consolidated net income.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>1</td>
<td>Financial statements audited by Ernst &amp; Young; reserves audited by DeGolyer &amp; MacNaughton.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2007</td>
<td>1</td>
<td>Of 29,500 employees, 11,000 work outside of Norway. 55% of the employees of the parent company have college/university education and 21% have craft certificates. 35% of the workforce is women. 69% of the workforce is unionized.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>1, 5</td>
<td>SH is Norway's biggest company for apprentices and its training of skilled workers maintains a stable and high level.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2007</td>
<td>1, 5</td>
<td>Detailed and quantitative. Outside of taxes, dividends, payroll etc. in Norway, much of SH's direct social/economic program investment appears to be international.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2007</td>
<td>1</td>
<td>34% of annual revenues to Norway.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2007</td>
<td>1</td>
<td>In 2007 SH reported proven domestic oil reserves of 1,604 million barrels of oil, down 4% from 2006, and accounting for 20% of Norway's oil reserves. 74% of SH's oil reserves are proved developed. SH reported domestic oil production of 299 million barrels for 2007, down 5% from 2006, and accounting for 32% of Norway's oil production. Foreign and private companies compete with Statoil and partnership with Statoil is not required. Large private oil producers include ConocoPhillips, ExxonMobil and BP. SH is increasingly focusing exploration to unexplored areas of the Norwegian Sea and Barents Sea. SH is a net exporter of oil primarily to the UK and European markets.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2007</td>
<td>1</td>
<td>In 2007 SH reported international oil reserves of 785 million barrels, up 4% from 2006, and representing 33% of SH's total oil reserves. International oil production in 2007 was 92 million barrels up 31% from 2006. International oil production accounts for 24% of SH's total oil production. SH operates in Canada, the US Gulf of Mexico, Alaska, Venezuela, Brazil, Algeria, Libya, Egypt, Angola, Nigeria, Tanzania, Azerbaijan, UK and Indonesia. In 2007 SH reported 114 BCF of international gas production, up 36% from 2006, accounting for 8% of SH's total gas production. SH also owns and operates the 118 mbbls/d Kalundborg refinery in Denmark which had a three average refinery utilization rate of 91%. 78% of Kalundborg's production slate is light products supplying markets in Denmark and Sweden. SH has 2,485 service stations in 8 countries. SH has a retail market market share of 30% in Norway, 32% in Sweden, 17% in Denmark, 40% in Estonia and 32% in Latvia.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>1</td>
<td>Norway has 2,444 kilometers of oil pipelines. There is a large network of subsea oil pipelines SH operates the Oseberg Transportation System (765,000 B/D) in which they have a 36.2% interest including the Sture crude oil terminal. It also operates the 265,000 B/D Grane pipeline and the twin Troll I/II pipeline system with capacity of 565,000 B/D.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>SH is the majority owner (79%) and operator of the Mongstad refinery in Norway which has 179 mbbls/d of primary distillation capacity, representing 58% of Norway's total capacity. Shell owns the other 21% of Mongstad. The other major refinery in Norway is operated by ExxonMobil. SH's refinery utilization rate for the three years ended 2007 was 97%. 45% of Mongstad's production goes to Scandinavian markets and 55% is exported to NW Europe and the US. 85% of Mongstad's production is light products including gasoline/naphtha, jet/kero and gasoil. SH also owns and operates the 118 mbbls/d Kalundborg refinery in Denmark which had a three average refinery utilization rate of 91%. 78% of Kalundborg's production slate is the light products mentioned previously supplying markets in Denmark and Sweden. SH has 2,485 service stations in 8 countries. SH has a retail market market share of 30% in Norway, 32% in Sweden, 17% in Denmark, 40% in Estonia and 32% in Latvia.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>1</td>
<td>SH reported 18.9 TCF in proved Norwegian gas reserves in 2007, accounting for 18% of Norway's gas reserves and 66% of SH's BOE Norwegian reserves. Production was 1.2 TCF, down 1% from 2006. SH production represents 14% of Norway's gas production and 42% of SH's total Norwegian BOE production. SH is a large gas supplier to European markets. Norway is counting on non-North Sea projects (Norwegian Sea and Barents Sea) to provide significant gas production.</td>
</tr>
<tr>
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<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007</td>
<td>1</td>
<td>In 2003 all gas pipelines with third party access in Norway were combined in a single joint venture, Gassled with capacity of 4.4 TCF/year; 2007 throughput was 68% of capacity. SH has a 28% interest in Gassled which is operated by Gassco SA, a wholly-owned company of the Norwegian state. Gassco also operates receiving terminals in Europe. The Ministry of Petroleum and Energy sets pipeline tariffs based on operating costs and returns on capital invested. SH is also responsible for the operation, maintenance and further development of two large gas processing plants (capacity of 224 MMCM/D) on behalf of Gassco. SH owns 51% of one of the largest air separation units in Scandinavia as well as 51% of the first Norwegian liquefaction plant at Tjeldbergodden with a capacity of 1.3 BCF. SH developed the Snohvit LNG project (initial capacity 4.1 million tons/yr.) in the Barents Sea that will serve European and US markets. The first LNG shipment from Snohvit took place in 2007. SH will use its capacity rights at the Cove Point LNG regasification plant in Maryland to receive shipments from Snohvit. In late 2007 SH became a 24% equity owner in the Russian Shtokman Development Co. Shtokman is the world's largest undeveloped offshore gas field with gas in place estimates of 131 TCF.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>SH owns 82% of the methanol plant at Tjeldbergodden which produced .70 MMT in 2007.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2007</td>
<td>1</td>
<td>SH is required by the Norwegian government to transport and market the gas production from the state's directly-owned equity interests in producing fields. The government's production accounted for 34% of SH's total marketed production in 2007. As a result, SH markets 80% of all Norwegian Continental Shelf gas. If the government decided to move this function from SH to another entity, the company says it could have a negative impact on their marketing business.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>73%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$25.06</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>-5%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>96%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$18.42</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$6.21</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$36.62</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$8.61</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>76%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>96%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>108%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>-9%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>$0.01</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>216%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td></td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>154%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td></td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>8%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>73%</td>
<td></td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>154%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>55%</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>9%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
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<td>10%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>26%</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>1</td>
<td>Policy is to ensure that petroleum activities create the highest possible value for the Norwegian state. There does not appear to be a public strategy for economic diversification.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2007</td>
<td>11</td>
<td>The commercial entities in the sector are separated, in general, from the policy/regulatory entities. The Ministry of Petroleum and Energy (MPE) is responsible for policy execution with respect to upstream resource management and regulation and the Norwegian Petroleum Directorate (NPD) is subordinate to the MPE and focuses on safety, emergency preparedness, environmental protection, education and international cooperation. Statoil/Hydro and Petoro SA are the state's upstream commercial entities. Petoro manages the state's direct financial interest (SDFI) in producing assets although SH continues to market the state's production subject to Petoro oversight. SH states the coordinated marketing policy with SDFI oversight. The government asserts that its presence as a passive interest owner in NCS producing assets aligns state and upstream company objectives: if the companies make money so does the state. Wholly state-owned Gassco SA operates the Gassled gas transportation system in which SH (among other JV members) has an interest and Gassled is regulated by the MPE.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>Objectives include maximizing value and potential on the Norwegian Continental Shelf (NCS) while growing international production profitably. They include developing profitable midstream and downstream positions and creating a new platform for new energy. Objectives not ranked publicly.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td></td>
<td>There does not appear to be a need for this in Norway as SH does not have extensive non-commercial burdens in Norway aside from taxes, dividends and payroll.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2007</td>
<td>12</td>
<td>Norway has a Government Pension Fund-Global which is a continuation of the Petroleum Fund. The fund's inflow consists of all state petroleum revenues as well as the return on the fund's investments. The outflow from the fund is the sum needed to cover the non-oil budget deficit, making net allocations to the fund equal to the total budget surplus including oil revenues. Norges Bank manages the fund's investments reporting to the Ministry of Finance. The fund was established to address intergenerational issues resulting from a depleting asset and to meet a rapid rise in public pension expenditures in coming years. The Fund is cited as one of the best examples of governance and transparency in the management of petroleum revenue. Value of the fund was about $300 billion at 1/1/07.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2007</td>
<td>9</td>
<td>SH supports and actively participates in EITI activities in EITI implementing countries.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007, 2006</td>
<td>10</td>
<td>Multiple non-NOC companies participate in the upstream, midstream and downstream sectors in Norway. Although oil production is declining as a result of NCS maturity, gas production is growing indicating continuing investment. SH cash flow is sufficient to cover capital expenditures. However, many oil majors have begun to withdraw from the NCS in order to enter higher growth potential areas.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC</td>
<td>2008</td>
<td>11</td>
<td>Yes; SH is investment grade at the &quot;A&quot; level.</td>
<td></td>
</tr>
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<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2006, 2007</td>
<td>10</td>
<td>Structure of tax regime renders smaller, marginal fields unprofitable. SH tax regime may become problematic as it enters higher risk frontier and international exploration areas.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006, 2007</td>
<td>10</td>
<td>There is a comprehensive hydrocarbon law: Norwegian Petroleum Act of 1996. The Norwegian resource management system explicitly has commercial roles for non-NOC participants in partnership with SH saying &quot;Competition among oil companies yields the best result when it comes to maximizing the value of petroleum resources.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2006, 2007</td>
<td>10</td>
<td>Companies including ConocoPhillips, ExxonMobil and BP have a sizeable presence in the Norwegian upstream.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2007</td>
<td>10</td>
<td>Exploration and production licenses are awarded to multi-company joint ventures. The companies compete but must also cooperate to maximize the value from the license. Expertise and experience from around the world are gathered together in nearly all the production licenses on the NCS. MPE decides the form of the joint operating agreements and appoints the operator. The MPE approves plans for development and operation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2007</td>
<td>1</td>
<td>SH is a fully-integrated company.</td>
</tr>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>16%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations</td>
<td></td>
<td>32%</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>30%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>-4%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007, 2006</td>
<td>10 Yes in partnership with Statoil.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007, 2006</td>
<td>10 International oil majors have a sizeable presence in the Norwegian upstream in partnership with Statoil. However, SH continues to control over 60% of the country's oil and gas production.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>10 Non-NOC entities participate in the midstream and downstream refining. Six foreign companies have interests in the Gassled gas transportation system which is controlled by Petoro/SH (70%). ConocoPhillips operates the Norpipe oil pipeline connecting Ekofisk fields to refining facilities in England. Shell has a 21% participation in the Mongstad refinery. ExxonMobil operates the 110,000 B/D Slagen refinery.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td>2007</td>
<td>10 See above.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007</td>
<td>10 From the beginning Norway envisioned a commercial role for international oil companies in the upstream sector where they now have a sizeable presence. However, importantly, Norway had to make substantial changes to its fiscal regimes during the 1980s</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2007</td>
<td></td>
<td>Non-government entities own 37.5% of SH.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Based on available information, level and quality of NOC international operations</td>
<td>2007</td>
<td>10</td>
<td>SH's international oil and gas production/reserves is significant (see Upstream Operations above) and is a major growth area for the company. International reserve replacement costs are high at $56.42/BOE.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2007</td>
<td>1</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007</td>
<td>10</td>
<td>The MPE and NPD have the major regulatory functions with respect to the hydrocarbon sector with the participation of other ministries as relevant. They are well-staffed and funded.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2007</td>
<td>10</td>
<td>The MPE and NPD regulate the gas transportation section with respect to access and tariffs. They also regulate the upstream sector with an objective of promoting competition.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2007</td>
<td>10</td>
<td>The MPE and NPD provide high quality, unbiased data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2007</td>
<td>No data</td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007</td>
<td>1</td>
<td>No price subsidies reported.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2007</td>
<td>5</td>
<td>No data; qualitative disclosure only. Direct expenditures appear to be directed at other countries.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$2,627.20</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$2,908.80</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007</td>
<td>10, 5</td>
<td>Extensive good quality data provided by SH and the Norwegian government.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>Statoil was established by the Storting in 1972 and became a public limited listed company in 2001. Norsk Hydro was awarded its first oil and gas exploration and production licenses in 1965. The two companies merged in October 2007. The government owns 62.5% of SH and plans to increase its interest to 67% over time.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2007</td>
<td>10</td>
<td>A key consideration for Norway is natural decline in established North Sea fields. SH plans to maintain stable volumes from the Norwegian Continental Shelf over the next few years through a combination of active exploration and effective field management of existing producing assets. It should continue to play a leading role in the European natural gas market. Production growth from international operations is a key component in achieving upstream growth. However, international reserve replacement costs are quite high. SH's ability to execute mega-projects is still uncertain: Snohvit LNG project had two cost overruns and there are still operational problems which is negatively impacting stable deliveries. Participation in the Shtokman project is a major undertaking for the company.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>29,500</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>25,268</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>17.71</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>29.35%</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>13.55%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>8,171.59</td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>104,566.72</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>26,200.33</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>19%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>83%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td></td>
<td>33.80%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td></td>
<td>96%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>31.19%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>99.94%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>1,388.08%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

<table>
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<tr>
<td>1</td>
<td>2007</td>
<td>StatoilHydro SEC Form 20F 2007. This Form 20F reflects a change in accounting standards from US GAAP to IFRS. Figures reflecting the merger of Statoil and NorskHydro in Oct. 2007 are available only for 2006 and 2007.</td>
<td><a href="http://www.sec.gov">www.sec.gov</a></td>
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<td>2</td>
<td>2007</td>
<td>Based on total Norway export percentages calculated from the difference between country production and consumption as reported in the 2008 BP Statistical Review of World Energy.</td>
<td><a href="http://www.bp.com">www.bp.com</a></td>
</tr>
<tr>
<td>3</td>
<td>2007</td>
<td>SH's downstream sector includes refining, marketing and a large gas processing plant. SH SEC Form 20F 2007: Business segments notes.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2007</td>
<td>Other costs include: early retirement costs, commodity derivatives, impairment losses. SH SEC Form 20F 2007: Business segments notes.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2007</td>
<td>StatoilHydro 2007 Sustainability Report. The direct social/economic expenditures and signature bonuses are reported in US dollars suggesting these are expenditures outside Norway (other contribution to state items are in $ NOK).</td>
<td><a href="http://www.statoilhydro.com">www.statoilhydro.com</a></td>
</tr>
<tr>
<td>7</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
</tr>
<tr>
<td>9</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
</tr>
<tr>
<td>11</td>
<td>2008</td>
<td>Company’s official web-site</td>
<td><a href="http://www.statoilhydro.com">www.statoilhydro.com</a></td>
</tr>
</tbody>
</table>
Russia: Gazprom

Corporate Governance Highlights

Corporate Organization and Ownership
Gazprom is the world’s largest gas company basically focused on geological exploration, production, transmission, storage, processing and marketing of gas and other hydrocarbons. The state owns a 50.002 per cent controlling stake in Gazprom.

Shares Controlled by Government
50.002%

Domestic, International Exchanges for Equity Listings
St. Petersburg Stock Exchange (Russian Federation), LSE (UK)

Board of Directors Structure
11 members, elected at shareholders meeting. Directors can be re-elected.

Independent Board Members
2

Is chairman also minister of energy or otherwise appointed by head of state?
The chairman is appointed by majority vote at the shareholders meeting.

Operations Highlights

Upstream Oil
Gazprom through affiliate GazpromNeft produced 45.4 million tons in 2006.

Midstream Oil
The company does not operate any oil pipelines.

Downstream Oil
Through the affiliate GazpromNeft, the company has 765 MB/D of refining capacity and operates retail business.

Upstream Natural Gas
The company produced 556 bcm of natural gas in 2006.

Midstream Natural Gas
The company operates 157,000 km of trunklines and has 65 bcm of storage capacity.

Downstream Natural Gas
Gazprom controls about 80% of the distribution network in the country.

Other
The company has significant assets in power generation and petrochemical sector.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Operations Performance Highlights</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>3,038</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>596,570</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>615</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>19,571</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>179</td>
</tr>
</tbody>
</table>

Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Financial Performance Highlights</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues($Millions)</td>
<td>44,789</td>
</tr>
<tr>
<td>Consolidated Average Total Assets($Millions)</td>
<td>153,243</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>18,050</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>13,079</td>
</tr>
</tbody>
</table>
Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>78</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>74</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
<td>65</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>87</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>40</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>44</td>
</tr>
<tr>
<td>Average</td>
<td>80</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

With strong support from its government, Gazprom is a dominant force in its businesses in all locations where it operates, and is attempting to exert considerable influence outside of Russia and in locations where the company appears to be taking strategic positions (Africa, Atlantic Basin LNG and so on). Gazprom's domestic crude oil reserves and production surged with the takeover of Yukos and other assets. The company is pursuing two high profile-high risk projects - Shtockman and Baltic LNG - and has altered terms and conditions several times with regard to potential and/or actual partners. A question is whether the company will be able to support the many commitments it is developing in a variety of locations.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td></td>
<td>Several non-affiliated NOCs - upstream downstream (Gazprom, Rosneft, Tatneft) and midstream (Transneft) - operate in the Russian Federation and internationally.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>9</td>
<td>Gazprom is a joint stock company incorporated in Russian Federation, majority owned by the state. It has an 11 member Board of Directors and a Management Committee running the company</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>The state owns a 50.002% stake in the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>St. Petersburg Stock Exchange (Russia), London Stock Exchange (UK)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>London Stock Exchange</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>11 members, elected at shareholders meeting. 5 members represent the state; no more than 25% of the board could be from the Management Committee; and there are members representing minority shareholders.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>The chairman is appointed by the major shareholder (the Sovereign).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>2 members. Elected at shareholders meeting. Directors can be re-elected.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Elected at shareholders meeting. Directors can be re-elected.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008 9</td>
<td></td>
<td>The BOD develops company strategy; approves annual budgets and investment programs; decides on shareholder capital changes, buyback of shares &amp; bonds; creates or terminates executive branches; decides on compensation for Management Committee; decides on hiring and termination of MC members; and carries out other typical BOD functions.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key executives and senior managers</td>
<td>2007 5</td>
<td></td>
<td>Reported to be mostly by merit.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>In principle, the BOD appears to have considerable budget and decision making authority and autonomy.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007 5</td>
<td></td>
<td>To a certain extent, predictable and separate from the Government budget process. “The Government regulates wholesale natural gas prices, which apply to most of Gazprom's sales of natural gas in the domestic market, tariffs for the services provided to independent producers related to natural gas transportation through trunk gas pipelines and those related to natural gas transportation through gas distribution networks, fees charged for supply and sales services, and retail natural gas prices.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes the company has numerous partnerships both internationally and domestically.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006 1</td>
<td></td>
<td>&quot;Ensure an efficient and balanced gas supply to consumers in the Russian Federation and fulfill long-term contracts and intergovernmental gas export agreements.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2007 5</td>
<td></td>
<td>“The Government has the right to exerts influence over Gazprom’s operations because of its controlling shareholding. The Government controls Gazprom's cash flows through its representatives on the Board of Directors, which is authorized to approve the financial plan and investment programs.”</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>5</td>
<td>The company’s auditor is ZAO PricewaterhouseCoopers (Moscow). Consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS). “Gazprom follows global best practice of information disclosure and the requirements of the Russian legislation. The Board of Directors approved Regulation on Gazprom’s information disclosure in February 2005.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>5</td>
<td>In 2006, Gazprom adopted a formal “human resources management policy.” Extensive training programs for all levels of employees are part of this policy.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>Gazprom reports activities, but not in detail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>Insignificant outside of the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>The company operates internationally as well (exploration and natural gas midstream). Gazprom does not have sole access to resources. Oil upstream operations are very recent - affiliate GazpromNeft created in 2005.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>The company does not participate in oil midstream.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>Gazprom controls 80% of gas production in the country. Exploration in India, Vietnam and other locations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td>Gazprom operates 156,900 km of gas pipelines (monopoly), has small-scale LNG facilities, 50+1% in Sakhalin LNG, 25 storage facilities with 65 bcm of capacity. Gazprom has a number of arrangements in a variety of countries that would add high visibility, large scale pipeline and LNG commitments to its portfolio (if consummated).</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td>Gazprom operates 318,391 km of distribution pipelines - about 80% of the internal market.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td>The company has significant assets in power generation and the petrochemical sector.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>45%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>64%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>472%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>142%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>472%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2003</td>
<td>2</td>
<td>“A basis for economy development and a instrument of domestic and foreign policy”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>In principle, the separation of policy, regulatory, and commercial roles among government entities is defined by law.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Very detailed and ranked</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>6, 7</td>
<td>The Stabilization fund of the Russian Federation was established on January 1, 2004 as a part of the federal budget to balance the federal budget when oil price falls below a cut-off price defined for budget preparation purposes. The Fund is managed by the Ministry of Finance, who delegates some asset management functions to the Central Bank. Accumulation, investment, and spending are reported regularly by the Ministry of Finance to the general public and to the Parliament. Since February 2008 the Stabilization fund has been split into two funds, one section managing official reserves, while the second part becomes the official sovereign wealth fund, National Welfare Fund. Transparency of the Fund has improved, but more needs to be done.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>3,4</td>
<td>Gazprom and Russia do not participate or support EITI. Transparency International operates in Russia via Brussels, National Democratic Institute operates in Russia.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Investment in the gas sector has been mostly sufficient to maintain production and infrastructure.</td>
</tr>
</tbody>
</table>
| Other Factors      | Fiscal Sustainability                                                                  | Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings |                        |        | Standard and Poor’s 29.11.2006 BBB Stable  
Moody’s 19.12.2006 A3 Stable  
Fitch Ratings 05.12.2006 BBB- Positive                                                                                                           |
| Other Factors      | Fiscal Sustainability                                                                  | Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base |                        |        | Fiscal regimes are appropriate for new field development as some investment is taking place, mostly by Russian companies, sometimes with foreign investors although direct foreign investment has been limited. However, investment environment and stability of contracts have been prominent issues in the press in recent years. |
| Other Factors      | Access to Reserves                                                                     | Hydrocarbon law to facilitate competitive upstream investment                      | 2008                   | 8      | The PSA model was adopted by decree in the early 1990s to attract foreign investment in upstream oil and gas. Four PSAs were signed with majority foreign participation between 1994 and 2002. This form of associatiation has had mixed fortune, and possibilities of future PSA projects with majority foreign share may be limited. Indeed the trend appears to move towards stronger national control over oil and gas operations. A new law on strategic sectors was introduced in May 2008, which restricts the foreign ownership in strategic companies or assets. Parallel changes were also introduced in the Law On Subsoil that together with the strategic sectors law now more clearly govern foreign investors’ access to the oil and gas sector. |
| Other Factors      | Access to Reserves                                                                     | Based on available information, existence of negotiated contracts/agreements for upstream investment |                        |        | A handful of PSAs and multiple JVs, typically with majority control with NOCs.                                                                                                                          |
| Other Factors      | Operating Strategy                                                                     | Based on available information, types of joint ventures, role of NOC(s)           |                        |        | The company dominates in JVs - typically over 50%                                                                                                                                                           |
### Russia: Gazprom

<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Vertically integrated</td>
<td>Vertically integrated</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Many companies are interested in participating in the Russian gas sector but Gazprom dominates the gas value chain (see the cell below). No formal requirement to include NOC as a partner except when the project is considered strategic in accordance with the law on strategic sectors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007 5</td>
<td>Moderate, except for gas export and transportation (monopolized); no formal requirement to include NOC as a partner. The Federal Law On Gas Export, promulgated in 2006, granted Gazprom exclusive right to export natural gas.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td></td>
<td></td>
<td>“Gazprom's operations related to natural gas transportation through pipelines are treated as natural monopolies' operations in accordance with the Federal Law On Natural Monopolies.”</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td></td>
<td></td>
<td>PSAs and JVs represent a relatively small share of operations. Reportedly not very successful.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td></td>
<td></td>
<td>49.998%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td></td>
<td></td>
<td>Some exploration and production - mostly in FSU, gas storage in transportation in FSU and Europe.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td></td>
<td></td>
<td>Insignificant</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td></td>
<td></td>
<td>Ministry has regulatory functions. Some level of influence exercised by the NOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td></td>
<td></td>
<td>Further reforms would be needed to move towards a regulatory environment that supports the development of competitive markets.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2006</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>&quot;As a condition of privatization in 1992, the Government imposed an obligation on the Group to provide an uninterrupted supply of gas to customers in the Russian federation at government controlled prices”. The Russian government has been working to increase pricing in order to enhance cost recovery for Gazprom and the other NOCs, and has pressured export customers in the same regard. In turn, Gazprom has pressured independent producers to take lower netbacks, thus improving the company's margins (especially for export sales). Fuel pricing issues in Russia and the new independent states are quite sensitive.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>Mostly within the company. Active sponsorship outside.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2006</td>
<td></td>
<td>$628.82</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$24.41</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$183.79</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007</td>
<td>7</td>
<td>Consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS).</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td></td>
<td>Russia, in its transition economy, has been through different stages already with regard to sovereign control of its hydrocarbon sector. It is conceivable that Gazprom will continue to be a key element of the government’s hydrocarbon sector strategy.</td>
</tr>
</tbody>
</table>
Russia: Gazprom

<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>With strong support from its government, Gazprom is a dominant force in its businesses in all locations where it operates, and is attempting to exert considerable influence outside of Russia and in locations where the company appears to be taking strategic positions (Africa, Atlantic Basin LNG and so on). Gazprom's domestic crude oil reserves and production surged with the takeover of Yukos and other assets. The company is pursuing two high profile, and very high risk, projects - Shtockman and Baltic LNG - and has altered terms and conditions several times with regard to potential and/or actual partners. A question is whether the company will be able to support the many commitments it is developing in a variety of locations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>243,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>17,102</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>47.86</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>44.50%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>13.39%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>79,432.08</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>1,576,753.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>351,286.07</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>22.61%</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>99.90%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>200.73%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
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## Sources of Information

<table>
<thead>
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<th>Source Description</th>
<th>Links</th>
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<tbody>
<tr>
<td>3</td>
<td>2008</td>
<td>Transparency International (through Brussels)</td>
<td><a href="http://www.transparency.org/regional_pages/europe_central_asia/contact">http://www.transparency.org/regional_pages/europe_central_asia/contact</a></td>
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<td>9</td>
<td>2008</td>
<td>Gazprom web site (rus)</td>
<td><a href="http://www.gazprom.ru/">http://www.gazprom.ru/</a></td>
</tr>
</tbody>
</table>
Russia: Rosneft

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
OJSC Oil Company Rosneft is a joint stock company incorporated in the Russian Federation.

Shares Controlled by Government
88.32%

Domestic, International Exchanges for Equity Listings
LSE (UK), MISEX, RTS (Russian Federation)

Board of Directors Structure
9 members

Independent Board Members
3 out of 9 members of BOD are independent - heads of HR and Renumerating Committee, Audit Committee and Strategic Planning Committee – and elected at shareholders meeting. Directors can be re-elected.

Is chairman also minister of energy or otherwise appointed by head of state?
The chairman is appointed by majority vote at the shareholders meeting.

Operations Highlights

Upstream Oil
Exploration licenses in Kazakhstan and Algeria, downstream JV in China. Rosneft does not have sole access to resources.

Midstream Oil
Some storage, two export oil terminals.

Downstream Oil
The total capacity of Rosneft seven refineries exceeds 45 million tons per annum. The Company’s retail network as of end of 2006 consisted of 684 proprietary and leased service stations, as well as 83 service stations operating under the Rosneft brand on a franchising basis.

Upstream Natural Gas
Rosneft has an integrated gas strategy which covers both onshore and offshore gas fields. The main project in terms of onshore gas production is the development of the large Kharampur field in Western Siberia, which accounts for 55% of the Company’s total proved gas reserves. Gas produced from this field and Rosneft’s other onshore projects will be sold through an agreement with Gazprom to use Russia’s existing gas infrastructure. Among Rosneft’s main offshore gas projects are Sakhalin-1, where commercial oil and gas production has been underway since the end of 2005, as well as Sakhalin-3, Sakhalin-4 and Sakhalin-5 and the project to develop the West Kamchatka shelf.

Midstream Natural Gas
Rosneft does not operate in midstream natural gas.

Downstream Natural Gas
Rosneft does not operate in downstream natural gas.

Other
Power generation on associated gas for own use.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>15,237</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>18,696</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>420</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>422</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>333</td>
</tr>
</tbody>
</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

- **Consolidated Average Total Revenues ($Millions)**: 20,741
- **Consolidated Average Total Assets ($Millions)**: 34,273
- **Consolidated Average EBIT ($Millions)**: 3,860
- **Consolidated Average Net Income ($Millions)**: 2,843

Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
</tr>
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<tbody>
<tr>
<td>Corporate Governance</td>
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<tr>
<td>Public Sector Governance</td>
<td>71</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>100</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>65</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>87</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>72</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>48</td>
</tr>
<tr>
<td>Average</td>
<td>82</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Being the largest oil company in Russia, Rosneft appears to be pressured to establish an equivalent status in natural gas production among its peers. Right now Rosneft produces mainly associated gas. The recent launch of Sakhalin 1 provided the first major source of unassociated gas for the company. Total natural gas reserves are estimated at 1.57 tcm in 2006. Major gas assets include Kharampur field (900 bcm of total reserves and planned production capacity of 27 bcm annually) and a 20 percent stake in Sakhalin 1. The company also holds 49% and 51% in the Sakhalin 4 and 5 projects respectively.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>There are several non-affiliated NOCs - upstream downstream (Gazprom, Rosneft, Tatneft) and midstream (Transneft) - operating in the Russian Federation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td>OJSC Oil Company Rosneft is a joint stock company incorporated in the Russian Federation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td>The chairman is appointed by the major shareholder (the Sovereign).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------------------------</td>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------</td>
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<td>--------</td>
</tr>
</tbody>
</table>
| Corporate Governance       | Role of BOD                                | Description of role and policy statements              | 2006                   | 3      | "The Board of Directors shall exercise general management of the Company’s activities within the framework of its terms of reference stipulated by law and the Company’s Charter. The Board of Directors is a key unit of the corporate conduct (governance) system of the Company providing not only efficient management of the Company, but also functioning of the system of control of the Company’s executive bodies activities, as well as observance and protection of the shareholders’ legitimate rights and interests."

| Corporate Governance       | Role of BOD                                | Based on available information, does BOD have power, impact, decision making authority | 2008                   | 2      | BOD has all major functions and powers.                                                                                                                                                                                                                                                                                                      |

| Corporate Governance       | Recruitment/Replacement Key Executives     | General process for recruitment, replacement of key execs and senior managers |                          |        | Reportedly mostly by merit.                                                                                                                                                                                                                                                                                                             |

| Corporate Governance       | Decision Making Processes                 | Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects. |                          |        | In principle, the BOD appears to have considerable budget and decision making authority and autonomy.                                                                                                                                                                                                                                  |

| Corporate Governance       | Decision Making Processes, Budget Autonomy| Based on available information, is NOC budget process predictable and separate from government | 2008                   | 6      | Mostly predictable and separate, except for the domestic pricing policies.  
"Rosneft is exposed to several risks in connection with sales of the gas it produces. The Unified Gas Supply System (UGSS) is owned and operated by OJSC Gazprom and transports all gas in Russia. Under existing regulations, Gazprom should provide access to UGSS to all internal independent suppliers on an equal basis. However, these regulations may change or OJSC Gazprom may fail to observe the principle of equal access in the future. OJSC Gazprom is a monopolistic supplier of gas in Russia. The Russian Government regulates prices of gas sold by OJSC" |
<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes, the company has numerous partnerships both internationally and domestically.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>2 “Rosneft’s strategic goal is to become the leading Russian oil and gas company with the best production and financial indicators in the sector and to become one of the largest energy companies in the world.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007, 2008</td>
<td>1, 6 “The Audit Committee was founded by order of the Board of Directors of Rosneft in June 2006 and is headed by an independent director. It comprises only non-executive members of the Board of Directors.” “Rosneft’s policy regarding information disclosure is based on the principles of regularity, efficiency, accessibility, integrity and meaningfulness. In May 2006, Rosneft’s Board of Directors adopted an Information Policy Statute, based on which information is accessible to shareholders and individuals concerned, regardless of the reasons for obtaining such information, by following a procedure guaranteeing that it is made...”</td>
</tr>
</tbody>
</table>
### Corporate Governance

#### Skill Base
- **Description:** Based on available information, NOC demographics (% management, % technical, other descriptors)
- **Response:** No data

#### Incentives/Career Management
- **Description:** Based on available information, HR promotion and professional development policies
- **Year of Source of Data:** 2007
- **Source:** Rosneft has extensive internal and external training programs (short courses, MBA, etc.), for employees of various levels.

#### Full Disclosure and Measurement of Non-commercial Objectives
- **Description:** Based on available information, brief description of reporting on noncommercial objectives
- **Response:** The company reports activities, but not in detail.

#### Full Disclosure and Measurement of Non-commercial Objectives
- **Description:** Based on available information, extent of non-commercial obligations
- **Response:** Insignificant outside of the company

### Value Creation Metrics

#### Operating Performance
- **Description:** Upstream oil E&P. Where does it operate (solely in the country or abroad or name countries)? Does it have sole access to country's resources?
- **Year of Source of Data:** 2007
- **Response:** Rosneft has exploration licenses in Kazakhstan and Algeria, and downstream JV in China. The company does not have sole access to resources.

#### Operating Performance
- **Description:** Does the NOC operate abroad?
- **Year of Source of Data:** 2007
- **Response:** Yes
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>1</td>
<td>Some storage, and two export oil terminals.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>“The total capacity of Rosneft seven refineries exceeds 45 million tons per annum. The Company’s retail network as of end of 2006 consisted of 684 proprietary and leased service stations, as well as 83 service stations operating under the Rosneft brand on a franchising basis.”</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>1</td>
<td>“Rosneft has an integrated gas strategy which covers both onshore and offshore gas fields. The main project in terms of onshore gas production is the development of the large Kharampur field in Western Siberia, which accounts for 55% of the Company’s total proved gas reserves. Gas produced from this field and Rosneft’s other onshore projects will be sold through an agreement with Gazprom to use Russia’s existing gas infrastructure. Among Rosneft’s main offshore gas projects are Sakhalin-1, where commercial oil and gas production has been underway since the end of 2005, as well as Sakhalin-3, Sakhalin-4 and Sakhalin-5 and the project to develop the West Kamchatka shelf.”</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007</td>
<td>1</td>
<td>Not active.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>Not active.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2007</td>
<td>1</td>
<td>Power generation using associated gas for own use.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>268%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$2.09</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>26%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>221%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>$5.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>$2.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>$3.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>242%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>468%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>$32.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>3,149%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>61%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>136%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>48%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>2</td>
<td>&quot;A basis for economy development and a instrument of domestic and foreign policy&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>In principle, the separation of policy, regulatory, and commercial roles among government entities is defined by law.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>Very detailed and ranked</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>7, 8</td>
<td>The Stabilization fund of the Russian Federation was established on January 1, 2004 as a part of the federal budget to balance the federal budget when oil price falls below a cut-off price defined for budget preparation purposes. The Fund is managed by the</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>4,5 Russia does not participate or support EITI. Transparency International operates in Russia via Brussels, National Democratic Institute operates in Russia.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Investment has been mostly sufficient; in response to recent decline in production, tax code was amended to encourage investment in marginal fields, offshore and new fields in East Siberia.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>BB - S&amp;P</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>Appropriate. Recent tax code changes are designed to encourage new field development in East Siberia and offshore areas.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>9 The PSA model was adopted by decree in the early 1990s to attract foreign investment in upstream oil and gas. Four PSAs were signed with majority foreign participation between 1994 and 2002. This form of association has had mixed fortune, and possibilities of future PSA projects with majority foreign share may be limited. Indeed the trend appears to move towards stronger national...</td>
<td></td>
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</tbody>
</table>
Russia: Rosneft

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>A handful of PSA and multiple JVs, typically with majority control with NOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>NOC dominates in JVs - typically over 50%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Vertically integrated</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Many companies are interested in participating in the Russian gas sector but Gazprom dominates the gas value chain (see the cell below). No formal requirement to include NOC as a partner except when the project is considered strategic in accordance with the law on strategic sectors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Moderate, except for gas export and transportation (monopolized). No formal requirement to include NOC as a partner.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>PSAs and JVs represent a relatively small share of operations. Reportedly these projects have, not been very successful.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007 1 Exploration licenses in Kazakhstan and Algeria, downstream JV in China</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>Insignificant</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>Ministry has regulatory functions. Some level of influence exercised by the NOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>Further reforms would be needed to move towards a regulatory environment that supports the development of competitive markets.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>--------------------</td>
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<td>------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy.</td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost.</td>
<td>See discussion related to Gazprom</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support.</td>
<td>Mostly within the company. Active sponsorship outside</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$461.90</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>$3.46</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$279.53</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007 6 “Rosneft is governed by requirements of the Federal Law on Securities, the Federal Law on Joint Stock Companies, the regulation on information disclosure by issuers of securities as approved by the Order of the Federal Service for the Financial Markets (FSFM) dated October 1 0, 2006 No 06-11 7/pz-n and other statutory acts.”</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>Established in 1993.</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Being the largest oil company in Russia, Rosneft appears to be pressured to establish an equivalent status in natural gas production among its peers. Right now Rosneft produces mainly associated gas. The recent launch of Sakhalin 1 provided the first major source of unassociated gas for the company. Total</td>
<td></td>
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</table>
**Russia: Rosneft**

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>74,200</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>6,645</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>47.86</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>44.50%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>13.39%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>79,432.08</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>1,576,753.11</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>351,286.07</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
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<td>Year Source of Data</td>
<td>Source Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>22.61%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>99.90%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>200.73%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td>No</td>
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## Sources of Information

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<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
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<tr>
<td>4</td>
<td>2008</td>
<td>Transparency International (through Brussels)</td>
<td><a href="http://www.transparency.org/regional_pages/europe_central_asia/contact">http://www.transparency.org/regional_pages/europe_central_asia/contact</a></td>
</tr>
</tbody>
</table>
**Russia: Transneft**

**Summary Report**

### Corporate Governance Highlights

#### Corporate Organization and Ownership

OAO AK Transneft is a joint stock company incorporated in the Russian Federation.

#### Shares Controlled by Government

100%

#### Domestic, International Exchanges for Equity Listings

MMVB, RTS (Russian Federation)

#### Board of Directors Structure

9 members, appointed at the shareholder's meeting. Directors can be re-elected

#### Independent Board Members

None

Is chairman also minister of energy or otherwise appointed by head of state?

The chairman is appointed by ministerial decree.

### Operations Highlights

#### Upstream Oil

The company does not operate in upstream.

#### Midstream Oil

The company operates the largest crude oil pipeline system in the world totaling approximately 47,865 km. The Group operates in midstream oil sector only.

#### Downstream Oil

Does not operate

#### Upstream Natural Gas

Does not operate

#### Midstream Natural Gas

Does not operate

#### Downstream Natural Gas

Does not operate

#### Other

Does not operate

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
</tr>
</tbody>
</table>

### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
</tr>
</tbody>
</table>
Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>66</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>64</td>
</tr>
<tr>
<td>Commercialization</td>
<td>50</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>50</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>65</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>87</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>86</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>11</td>
</tr>
<tr>
<td>Average</td>
<td>64</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Recent Russian oil production declines will negatively impact Transneft's cash position and perhaps profitability. As an oil pipeline operator, Transneft is most dependent upon actions taken by the Russian government to spur new upstream investment (and thus increase throughput). This means grappling with how to structure investment, including foreign and private participation in Russia's oil sector while still exerting the kind of state influence that seems to be preferred.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2007</td>
<td>1</td>
<td>There are several non-affiliated NOCs - upstream downstream (Gazprom, Rosneft, Tatneft) and midstream (Transneft) - operating in the Russian Federation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>1</td>
<td>“OAO AK Transneft is a joint stock company incorporated in the Russian federation and operates the largest crude oil pipeline system in the world totaling approximately 47,865 km.” The Group operates in midstream oil sector only.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100 %</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>Yes - MMVB, RTS (Russia) - only preferred stock</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>None</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td>9 members.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td>The chairman is appointed by the major shareholder (the Sovereign).</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
<td></td>
<td>BOD members are appointed at the shareholder's meeting. Directors can be re-elected.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td>The BOD develops company strategy; decides on shareholder capital changes, buyback of shares &amp; bonds; creates or terminates executive branches; decides on compensation for the auditor.</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>-----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>The BOD has limited decision-making powers - affected by the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>The company budget decisions are dominated by the government. The company budgets for smaller pipelines and system maintenance; but larger projects are often brought forward by the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>The company does its own budgets but project selection is impacted by government strategies as discussed above; and revenues of the company are based on tariffs set by the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>The company’s auditor is ZAO PricewaterhouseCoopers (Moscow). Consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>Very limited</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>Insignificant</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>Not active</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>“Transneft operates the largest crude oil pipeline system in the world totaling approximately 47,865 km. The Group is considered by management to have a single main activity and therefore one industry and geographic segment.”</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>Not active</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>Not active</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
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<td>Not active</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>Not active</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>Not active</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
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<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
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<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg profit margin (%)</td>
<td>74%</td>
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<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
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<tr>
<td><strong>Metrics</strong></td>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td></td>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>19%</td>
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<td></td>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>28%</td>
<td></td>
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<tr>
<td></td>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>29%</td>
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<td></td>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>14%</td>
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<tr>
<td><strong>Other Factors</strong></td>
<td><strong>Public Sector Governance</strong></td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2003</td>
<td>2</td>
<td>“A basis for economy development and a instrument of domestic an foreign policy”</td>
</tr>
<tr>
<td></td>
<td><strong>Public Sector Governance</strong></td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>In principle, the separation of policy, regulatory, and commercial roles among government entities is defined by law.</td>
</tr>
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<td></td>
<td><strong>Public Sector Governance</strong></td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>Very detailed and ranked</td>
</tr>
<tr>
<td></td>
<td><strong>Public Sector Governance</strong></td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td></td>
<td><strong>Public Sector Governance</strong></td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>8, 9</td>
<td>The Stabilization fund of the Russian Federation was established on January 1, 2004 as a part of the federal budget to balance the federal budget at the time of when oil price falls below a cut-off price defined for budget preparation purposes. The Fund is managed by the Ministry of Finance, who delegates some asset management functions to the Central Bank. Accumulation, investment, and spending are</td>
</tr>
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<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2008</td>
<td>The PSA model was adopted by decree in the early 1990s to attract foreign investment in upstream oil and gas. Four PSAs were signed with majority foreign participation between 1994 and 2002. This form of association has had mixed fortune, and possibilities of future PSA projects with majority foreign share may be limited. Indeed the trend appears to move towards stronger national control over oil and gas operations. A new law on strategic sectors was introduced in May 2008, which restricts the foreign ownership in strategic companies or assets. Parallel changes were also introduced in the Law On Subsoil</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>2008</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>2008</td>
<td>Investment has been mostly sufficient; in response to recent decline in production, tax code was amended to encourage investment in marginal fields, offshore and new fields in East Siberia.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>2008</td>
<td>Standard &amp; Poor’s - BBB+ ; Moody’s - A2, Aaa;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>2008</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Other</td>
<td>2008</td>
<td>Russia does not participate in or support EITI. Transparency International operates in Russia via Brussels. National Democratic Institute operates in Russia.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Other</td>
<td>2008</td>
<td>Indicators are reported regularly by the Ministry of Finance to the general public and to the Parliament. Since February 2008 the Stabilization fund has been split into two funds, one section managing official reserves, while the second part becomes the official sovereign wealth fund, National Welfare Fund. Transparency of the Fund has improved, but more needs to be done.</td>
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**Russia: Transneft**
Russia: Transneft

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<th>Source</th>
<th>Response</th>
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<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Not applicable</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>No JVs</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
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<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>Horizontal</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>Yes</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Many companies are interested in participating in the Russian gas sector but Gazprom dominates the gas value chain (see the cell below). No formal requirement to include NOC as a partner except when the project is considered strategic in accordance with the law on strategic sectors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>None - monopoly on oil and oil products pipeline transportation</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>None</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>0%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>None</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>Insignificant</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>Ministry has regulatory functions. Some level of influence exercised by the NOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>Further reforms would be needed to move towards a regulatory environment that supports the development of competitive markets.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
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<td>No data</td>
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<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>None - tariffs are set by the government.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>Mostly within the company. Active sponsorship outside.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2006</td>
<td>1</td>
<td>Consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS).</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<td>$13.41</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>$100.13</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1</td>
<td>Russian oil pipeline transport is an old business. Transneft was created in 1992 as the Russian transition unfolded. It was part of the decree that also separated Lukoil, Surgutneftegaz, Yukos and Rosneft.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td></td>
<td>Russian oil pipeline transport is an old business. Transneft was created in 1992 as the Russian transition unfolded. It was part of the decree that also separated Lukoil, Surgutneftegaz, Yukos and Rosneft.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Recent Russian oil production declines will negatively impact Transneft's cash position and perhaps profitability. As an oil pipeline operator, Transneft is most dependent upon actions taken by the Russian government to spur new upstream investment (and thus increase throughput). This means grappling with how to structure investment, including foreign and private participation,</td>
</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>in Russia's oil sector while still exerting the kind of state influence that seems to be preferred.</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>47.86</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>44.50%</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<td>13.39%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>79,432.08</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>1,576,753.11</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>351,286.07</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
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<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>22.61%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>99.90%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>200.73%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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</table>
### Corporate Governance Highlights

**Corporate Organization and Ownership**
Incorporated in 1998, 100% owned by the State, partial privatization plans for 2006-2008.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
4 members, approved by the shareholders' meeting

**Independent Board Members**
No

**Is chairman also minister of energy or otherwise appointed by head of state?**
No

### Operations Highlights

**Upstream Oil**
Operates solely in the country; does not have sole access to resources. Upstream affiliate Uzneftegazdobicha does not report data.

**Midstream Oil**
Affiliate operates 23 oil tank farms

**Downstream Oil**
Affiliate operates 2 refineries

**Upstream Natural Gas**
Affiliate Uzneftegazdobicha does not report data

**Midstream Natural Gas**
N/A

**Downstream Natural Gas**
N/A

**Other**
N/A

### Operations Performance Highlights (2004-2007; not all years or data reported)

| Upstream: Average Proved Oil Reserves (MM Barrels) | No data |
| Upstream: Average Proved Gas Reserves (BCF) | No data |
| Upstream: Average Annual Oil Production (MM Barrels) | No data |
| Upstream: Average Annual Natural Gas Production (BCF) | No data |
| Downstream: Average Annual Refinery Production (MM Barrels) | No data |

### Financial Performance Highlights (2004-2007; not all years or data reported)

| Consolidated Average Total Revenues ($Millions) | 2,057 |
| Consolidated Average Total Assets ($Millions) | 749 |
| Consolidated Average EBIT ($Millions) | 4 |
| Consolidated Average Net Income ($Millions) | 3 |
With no access to the Caspian Sea, Uzbekistan has been constrained in building export strategies that would provide some independence from the Russian (Gazprom) transmission system. The Uzbeks have not been happy with prices offered for their natural gas supplies. Continuous tensions and shifting strategies related to pipeline transpiration through, around and from the Central Asia region generate considerable uncertainty regarding natural gas exports. The pipeline network in Uzbekistan does not support the current market or the prospective Uzbek natural gas sector. In February 2005 Gazprom and UztransGas signed an agreement for natural gas transportation for 2006-2010, which stipulates recovery and upgrades of the Central Asia-Center and Bukhara-Urals gas trunklines. Having control over these trunklines, Uzbekistan is strategically important for Russia, since it is responsible for transit of most of the Turkmen gas imports.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>Uzbekneftegaz is a holding company, controlling 6 other NOCs (upstream, midstream, downstream, etc.) in Uzbekistan.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>Incorporated in 1998, 100% owned by the State, partial privatization plans for 2006-2008.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>100%</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>No</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>Yes - since 2006</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>4 members, approved by the shareholders' meeting</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td>&quot;BOD defines strategy and perspectives of the industry, as well as tactics and midterm tasks&quot;</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>Very limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>By the government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>No budget authority - everything has to be approved by the government</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>Unpredictable and inseparable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes, yet with approval of the government</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>Has to be approved by the government</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>Audited by independent domestic company, yet level of reporting is very low</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>Operates solely in the country; does not have sole access to resources. Upstream affiliate Uzneftegazdobicha does not report data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>2</td>
<td>Affiliate operates 23 oil tank farms</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>2</td>
<td>Affiliate operates 2 refineries</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>Affiliate Uzneftegazdobicha does not report data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>0%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>47%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>1%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>Clear in principle, yet confusion in practice because of formal prevalence of the government.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>The state budget is published on the Ministry of Finance’s website, although in aggregated form. Overall low level of transparency.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>6</td>
<td>Uzbekistan does not participate in EITI. Transparency International operates in the country via the Berlin office.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Fiscal regime seems to be competitive, but Uzbekistan has a limited resource base.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Seems to be appropriate</td>
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<tr>
<td>Indicator Category</td>
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<td>Year of Source of Data</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007 (2000)</td>
<td>3 Law of 2000; concessions for up to 25 years; tax preferences - no taxes during exploration stage; no corporate income tax during first 7 production years and 50% afterwards if a JV).</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>PSA with Petronas (100% equity and operator)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>JV with CNPC</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Vertically integrated holding company</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>Response</td>
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<tr>
<td>-------------------</td>
<td>----------------------</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Insignificant; no formal requirement</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Insignificant; no formal requirement</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Several attempts; rate of success was low</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>Plans to privatize affiliates up to 49%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>Absent</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>------------------------</td>
<td>--------</td>
<td>-----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Energy fuels and other necessities are subsidized in Uzbekistan. How costs are managed is very unclear.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$10,554.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$28,974.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Affiliates provide some independently audited data. NOC reports vary little, as does the government.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008 1 Created in 1998.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
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<td>--------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>With no access to the Caspian Sea, Uzbekistan has been constrained in building export strategies that would provide some independence from the Russian (Gazprom) transmission system. The Uzbeks have not been happy with prices offered for their natural gas supplies. Continuous tensions and shifting strategies related to pipeline transportation through, around and from the Central Asia region generate considerable uncertainty regarding natural gas exports. The pipeline network in Uzbekistan does not support the current market or the prospective Uzbek natural gas sector. In February 2005 Gazprom and UztransGas signed an agreement for natural gas transportation for 2006-2010, which stipulates recovery and upgrades of the Central Asia-Center and Bukhara-Urals gas trunklines. Having control over these trunklines, Uzbekistan is strategically important for Russia, since it is responsible for transit of most of the Turkmen gas imports.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
<td>28.20</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>0.00%</td>
</tr>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>0.00%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>594.00</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
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<td>61,602.99</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td></td>
<td>11,215.20</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
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<td></td>
<td></td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>78%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>5.30%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
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<td></td>
<td>99.15%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>123.80%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

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<tr>
<td>1</td>
<td>2008</td>
<td>Company web-site (rus)</td>
<td><a href="http://www.uzneftegaz.uz">www.uzneftegaz.uz</a></td>
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<td>2</td>
<td>2008</td>
<td>Uzaneftmakhsulot website (rus)</td>
<td><a href="http://www.uzoilproduct.uz/rus/otd.htm">http://www.uzoilproduct.uz/rus/otd.htm</a></td>
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<td>2008</td>
<td>Transparency International (through Berlin)</td>
<td><a href="http://www.transparency.org/regional_pages/europe_central_asia/contact">http://www.transparency.org/regional_pages/europe_central_asia/contact</a></td>
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<tr>
<td>7</td>
<td>2007</td>
<td>&quot;Decision of General Meeting of Shareholders&quot; (rus)</td>
<td><a href="http://www.gazetabirja.uz/index.php?option=com_content&amp;task=view&amp;id=232&amp;Itemid=31">http://www.gazetabirja.uz/index.php?option=com_content&amp;task=view&amp;id=232&amp;Itemid=31</a></td>
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</table>
The NOCs in Latin America and the Caribbean
# Argentina: Energía Argentina Sociedad Anónima (ENARSA)

## Corporate Governance Highlights

### Corporate Organization and Ownership
ENARSA was created in December 2004 through legislation. Class A Shares (53%) are owned by the state. Class B and C shares (12%) are owned by the provinces. Class D shares (35%) may be offered to the public. ENARSA replaces Argentina's prior NOC, YPFA. (YPFA, created in 1922, was privatized in 1993 and then acquired by Repsol in 1999).

### Shares Controlled by Government
53% to 88% depending upon share class.

### Domestic, International Exchanges for Equity Listings
Not listed.

### Board of Directors Structure
5 directors representing Class A shares and up to 2 additional directors representing Class B and C shares. One of the Class A directors "must" have experience in capital markets.

### Independent Board Members
Members of the BOD are not considered external directors.

### Is chairman also minister of energy or otherwise appointed by head of state?
Since its inception, the company BOD has only had one President, appointed from the private sector. It is not clear how the position is to be filled in the future.

## Operations Highlights

### Upstream Oil
"ENARSA was created, among other reasons, to have title to exploration and concession rights of all offshore areas that are not subject to previous concessions or contracts. In addition, it may participate on its own, in association with third parties or through them in any element of the energy value chains."

### Midstream Oil
NA

### Downstream Oil
In association with PDVSA, ENARSA owns the right to a limited number of fuel stations in Argentina. Given that Enarsa does not produce petroleum products, fuel supplies would need to be procured from third parties.

### Upstream Natural Gas
ENARSA announced a bidding round for offshore exploration. In those rounds, ENARSA will likely have a majority interest (which will be carried by the partners).

### Midstream Natural Gas
In May 2008 ENARSA signed a Memorandum of Understanding with PDVSA to build a pipeline and build and operate an LNG liquefaction facility for 4.5 million tons per annum. In addition, the gas that the pipeline will bring onshore is slated to feed the Great South American natural gas pipeline system proposed by PdVSA/Venezuela.

### Downstream Natural Gas
ENARSA is entering into partnerships with PDVSA and others to build LNG regasification facilities in Argentina to provide natural gas during the winter heating season in the near future.

### Other
ENARSA does not own or operate assets in the power sector, but it does manage licensing and bidding rounds for power generation.
Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
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</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
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<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
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</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
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</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
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Categorization Indicators

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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
<td>43</td>
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<tr>
<td>Commercialization</td>
<td>25</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>50</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>1</td>
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<tr>
<td>Oil Dependency</td>
<td>99</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>54</td>
</tr>
<tr>
<td>Average</td>
<td>42</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

ENARSA seeks to be an important player in the energy sector in Argentina and the region as a whole. However, its upstream carried interests do not show any measure of performance to date. Argentina appears to be increasing state participation in the energy sector after decreasing such energy sector participation in the 1990s. Price controls continue to inhibit new, needed investment in both energy resources and infrastructure. The imposition of natural gas price controls following the financial crisis of 2002 led to natural gas shortages in Argentina. As a result, Argentina was unable to fulfill its natural gas supply obligations to Chile. These events had negative economic repercussions in Chile and strained gas and electricity supplies throughout the Southern Cone region.
### Data Table

<table>
<thead>
<tr>
<th><strong>Indicator Category</strong></th>
<th><strong>Indicator Description</strong></th>
<th><strong>Indicator (Query)</strong></th>
<th><strong>Year of Source of Data</strong></th>
<th><strong>Source</strong></th>
<th><strong>Response</strong></th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Sole NOC</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2005</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008, 2007</td>
<td>2, 3</td>
<td>ENARSA was created in December 2004 through legislation. Class A Shares (53%) are owned by the state. Class B and C shares (12%) are owned by the provinces. Class D shares (35%) may be offered to the public. ENARSA replaces Argentina's prior NOC, YPFA. (YPFA, created in 1922, was privatized in 1993 and then acquired by Repsol in 1999).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2005</td>
<td>1</td>
<td>53% to 88% depending upon share class.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>2</td>
<td>Not listed.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>2</td>
<td>Not listed.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2005</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2005</td>
<td>1</td>
<td>5 directors representing Class A shares and up to 2 additional directors representing Class B and C shares. One of the Class A directors &quot;must&quot; have experience in capital markets.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Since its inception, the company BOD has only had one President, appointed from the private sector. It is not clear how the position is to be filled in the future.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>Members of the BOD are not considered external directors.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Since its inception, the company has had only one BOD. Despite for calls from the Senate for the removal of the President of the Company due to potential conflicts, this has not taken place.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>The BOD is responsible for the day-to-day operations of the company while federal agencies perform audits and budget planning. Hiring of personnel is part of its duties. It may call upon other public employees to support its activities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>ENARSA executes partnerships proposed by the Federal Government. It is not clear yet if the company can propose projects in addition to those that derive from the central government given the apparent lose ties of the BOD with the current administration.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>BOD statements are that it recruits &quot;ideal&quot; personnel for its operations. It may recruit from &quot;other&quot; federal agencies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>The budget for ENARSA is approved by the federal government (Ministerio de Planificacion Federal, Inversion Publica y Servicios).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>No. The budget for ENARSA is approved by the federal government (Ministerio de Planificacion Federal, Inversion Publica y Servicios).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>It may partner with third parties, always retaining majority interest in any activity that is performed within Argentina. Associations must comply with the &quot;hydrocarbon law&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>Yes. (1) Collaboration in the supply of energy to help fuel the country's growth and the public's well-being; (2) Promotion of the development of national industries; (3) Value creation for the shareholders and (4) Participation in the Southern Cone region's energy integration efforts.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>The budget for ENARSA is approved by the federal government (Ministerio de Planificacion Federal, Inversion Publica y Servicios). The executive branch created the necessary budget to form the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>The company is subject to the laws and controls of the national public sector. In addition, the company has a unit in charge of internal controls and auditing led by 5 members.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>The company is new and had 35 reported employees in early 2008, mostly in managerial positions.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>&quot;ENARSA was created, among other reasons, to have title to exploration and concession rights of all offshore areas that are not subject to previous concessions or contracts. In addition, it may participate on its own, in association with third parties or through them in any element of the energy value chains.&quot; ENARSA does not have sole access to Argentina’s energy resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No. However, it is entering into partnerships with PDVSA and other companies abroad. This may eventually lead to outbound investment.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>In association with PDVSA, ENARSA owns the right to a limited number of fuel stations in Argentina. At this time, it appears that third parties would have to be the fuel suppliers for these stations as ENARSA does not have its own supplies as yet.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>ENARSA announced a bidding round for offshore exploration. In those rounds, ENARSA will likely have a majority interest (which will be carried by the partners).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>In May 2008 ENARSA signed a Memorandum of Understanding with PDVSA to build a pipeline and build and operate an LNG liquefaction facility for 4.5 million tons per annum. In addition, the gas that the pipeline will bring onshore is slated to feed the Great South American natural gas pipeline system proposed by PdVSA/Venezuela.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>ENARSA is entering into partnerships with PDVSA and others to build LNG regasification facilities in Argentina to provide natural gas during the winter heating season in the near future.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>ENARSA does not own or operate assets in the power sector, but it does manage licensing and bidding rounds for power generation.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
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<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>Since the energy crisis during winter of 2003 and the interruption of exports to Chile, energy has regained importance in Argentinian affairs. ENARSA is the country's attempt to have a clear instrument to align the role of the hydrocarbon sector with the nation's general development objectives.</td>
<td></td>
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<tr>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>The company acts as a commercial entity as well as regulator conducting upstream and power bidding rounds. It is responsible for all offshore activity in areas not subject to previous concessions.</td>
<td></td>
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</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>All publicly stated objectives are important and match the national development objectives. Commercial objectives are limited to growing shareholder value.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No strategy disclosed.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>Source Response</td>
<td>Class B and C shares are used as a mechanism to transfer revenue to the provinces. This is limited to 12%. The rest is dominated by the 53% to 88% owned by the State. Royalties up to a maximum rate of 12% are paid to producing provinces. A Fondo de Regalias Petroleras (ley de Federalizacion de hidrocarburos) is used to distribute royalties between federal government and provinces, but no data is publicly available in this respect.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>ENARSA is subject to legislation that governs state entities. Argentina is not a candidate country for EITI. The Transparency International chapter in Argentina, Poder Ciudadano, was one of the first in Latin America.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Argentina's fiscal regime (taxes, royalties etc.) is not considered to be the main obstacle for investment. The main issues surround the price controls imposed on energy products.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>Debt has been issued jointly with PDVSA and is part of Argentina's national debt portfolio. In general, the rates achieved are better than the country's own due to the strength of PDVSA.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>A good test of suitability of fiscal regime for the stage of hydrocarbon development in Argentina will be the offshore licensing round that is scheduled for December 2008. This is the next frontier open for exploitation in the country.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>The law that created ENARSA allows for competition in the bidding process for new offshore areas but requires that ENARSA be a majority partner in the ventures. In addition, ENARSA's interest is likely to be carried by the partners.</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>New bidding round later this year for offshore exploration and production should result in contracts/agreements for upstream.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>ENARSA must maintain majority ownership of assets in Argentina in its domain. It is free to partner with third parties. In addition, it has moved to partner with PDVSA abroad.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>By design ENARSA may participate in any element of the energy value chain. However current operations are limited to upstream offshore activities. There are MOUs in place for pipeline and LNG operations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes. Usually carried interest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>The law that created ENARSA allows for competition in the bidding process for new offshore areas but requires that ENARSA be a majority partner in the ventures. In addition, ENARSA's interest is likely to be carried by the partners.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>The law that created ENARSA allows ENARSA to participate in any activity of the energy value chain but it must be a majority partner. In addition, ENARSA's interest is likely to be carried by the partners.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>ENARSA is partnering with other NOCs extensively.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>Can be up to 35%. No readily available information regarding ownership of Class D shares.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>Carried interest in activities with PDVSA.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>ENARSA also acts as an energy regulator with respect to conducting bidding rounds for offshore exploration blocks and electric power provisions. Overall, oversight is provided by the Secretaría de Energía.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>In its regulatory role, ENARSA is authorized to act against monopolies and other concentrations of market power.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>&quot;ENARSA may create, administer, operate, maintain, and manage an &quot;Integrated Data Base&quot; of information on the hydrocarbons of Argentina. This database will be accessible by all participants in the market following as yet unspecified regulations.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Fuel prices are regulated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Not much data is readily available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>ENARSA replaces Argentina's prior NOC, YPFA. (YPFA, created in 1922, which was privatized in 1993 and then acquired by Repsol in 1999)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ENARSA seeks to be an important player in the energy sector in Argentina and the region as a whole. However, its upstream carried interests do not show any measure of performance to date. Argentina appears to be increasing state participation in the energy sector after decreasing such energy sector participation in the 1990s. Price controls continue to inhibit new, needed investment in both energy resources and infrastructure. The imposition of natural gas price controls following the financial crisis of 2002 led to natural gas shortages in Argentina. As a result, Argentina was unable to fulfill its natural gas supply obligations to Chile. These events had negative economic repercussions in Chile and strained gas and electricity supplies throughout the Southern Cone region.

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>ENARSA seeks to be an important player in the energy sector in Argentina and the region as a whole. However, its upstream carried interests do not show any measure of performance to date. Argentina appears to be increasing state participation in the energy sector after decreasing such energy sector participation in the 1990s. Price controls continue to inhibit new, needed investment in both energy resources and infrastructure. The imposition of natural gas price controls following the financial crisis of 2002 led to natural gas shortages in Argentina. As a result, Argentina was unable to fulfill its natural gas supply obligations to Chile. These events had negative economic repercussions in Chile and strained gas and electricity supplies throughout the Southern Cone region.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>35</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>9.98</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>5.77%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>1.44%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>2586.76</td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>15538.45</td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>5265.81</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited (protocol is not clear)</td>
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<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>Not applicable</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>49.12%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>99.89%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>117.77%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<td>No</td>
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# Sources of Information

<table>
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<th>Source Description</th>
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<tr>
<td>3</td>
<td>2007</td>
<td>Energy Cooperation in the Western Hemisphere, Ch 16 (Foss, Wainberg, Volkov), CSIS</td>
<td><a href="http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/">http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/</a></td>
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</tbody>
</table>
Bolivia: Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
Initially formed in 1937 with the nationalization of operations of foreign companies. Started operations in 1939 building its first refinery in 1946. Privatized ("capitalized") in 1996 along with several other state entities; proceeds used for national social security. With the Hydrocarbon Law of 2004 and the 2006 nationalization of foreign interests, YPFB was brought back into existence. As assets have been nationalized, they have been put under YPFB’s administrative and operating control.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
No data

Board of Directors Structure
BOD is composed of an Executive President, two vice-presidents, two directors and the CFO.

Independent Board Members
Not by design.

Is chairman also minister of energy or otherwise appointed by head of state?
Company reports to the Minister of Energy. The President of YPFB is appointed by the head of state.

Operations Highlights

Upstream Oil
YPFB has controlling interests in Bolivia’s upstream oil operations. It operates in Bolivia only. It does not have sole access to the country’s resources but has controlling interests in the resources. Foreign companies continue to have minority positions in Bolivia’s upstream resources. Oil production is declining.

Midstream Oil
In May 2008, YPFB received a 97% interest in Transredes which handled considerable portions of mid-stream operations.

Downstream Oil
In 2007 the Bolivian government spent $112 million to acquire controlling interests in two refineries previously controlled by Petrobras.

Upstream Natural Gas
YPFB has controlling interests in Bolivia’s upstream gas operations. It operates in Bolivia only. It does not have sole access to the country’s resources but has controlling interests in the resources. Foreign companies continue to have minority positions in Bolivia’s upstream resources. Gas production is not sufficient to meet export commitments. The country may have to restrict domestic natural gas consumption.

Midstream Natural Gas
In May 2008 YPFB received a 97% interest in Transredes which handled considerable portions of the mid-stream.

Downstream Natural Gas
YPFB is responsible for aggregating production, and sales of natural gas exports.

Other
YPFB does not participate in other businesses.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>883</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>50,555</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>18</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>495</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
</tr>
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</table>
### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>702</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>1,227</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>516</td>
</tr>
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### Categorization Indicators

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Public Sector Governance</td>
<td>34</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>40</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>50</td>
</tr>
<tr>
<td>Commercialization</td>
<td>25</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>1</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>98</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>89</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>50</td>
</tr>
<tr>
<td>Average</td>
<td>41</td>
</tr>
</tbody>
</table>

### Worldwide Governance Indicators

#### Trends and Issues

Natural gas exports have been an important component of national income. A key question is whether production and export sales can be sustained. Bolivia has long hoped to diversify its natural gas customer base, currently dominated by Brazil. Plans to develop west-bound export rights, such as Pacific LNG, have failed as a result of territorial issues with Chile.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>1</td>
<td>NOC cluster. YPFB has controlling interests in other upstream, midstream and downstream companies (Petrolera Andina, Petrolera Chaco, Transredes and two refineries with Petrobras).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>1</td>
<td>NOC cluster.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006, 2007</td>
<td>1, 4</td>
<td>Initially formed in 1937 with the nationalization of operations of foreign companies. Started operations in 1939 building its first refinery in 1946. Privatized (&quot;capitalized&quot;) in 1996 along with several other state entities; proceeds used for national social security. With the Hydrocarbon Law of 2004 and the 2006 nationalization of foreign interests, YPFB was brought back into existence. As assets have been nationalized, they have been put under YPFB’s administrative and operating control.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>BOD is composed of an Executive President, two vice-presidents, two directors and the CFO.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>Company reports to the Minister of Energy. The President of YPFB is appointed by the head of state.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>Response</td>
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<td>----------------------</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>The President and BOD can be readily removed as evidenced by the rotation during the past two years.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>The BOD negotiates, approves and manages all hydrocarbon contracts. It also oversees operations and production so as to protect reservoirs and maximize production.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>The BOD can initiate the process of negotiation of new contracts. However, these need to be ratified at other instances limiting the final authority.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>YPFB reports to the Ministry of Mines which provides budgetary and policy guidelines to the company. No information is publicly available on how the “re-founding” of YPFB has affected its autonomy and management decision-making power.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>No. YPFB reports to the Ministry of Mines which provides budgetary and policy guidelines to the company. No information is available in the public domain with respect to the company’s budget process.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008 10</td>
<td></td>
<td>NOC authority to partner with other entities is unclear. The Ministry of Energy and Mines is developing a new hydrocarbon law which is expected to be presented to the Council of Ministers in early 2009.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>YPFB is a state company run as an autonomous commercial entity with a strategic focus to tackle all aspects of the hydrocarbon value chain, so as to adequately supply the country and guarantee its energy security.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>-----------------------</td>
<td>-------------------</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>1</td>
<td>Commercial and financial data is supplied as part of its annual report. The annual report (2006) does not indicate external auditors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2008</td>
<td>6</td>
<td>YPFB has yet to regain control of Bolivia’s hydrocarbon sector. One of its three principal challenges is human resources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
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<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>YPFB has controlling interests in Bolivia’s upstream oil operations. It operates in Bolivia only. It does not have sole access to the country’s resources but has controlling interests in the resources. Foreign companies continue to have minority positions in Bolivia’s upstream resources. Oil production is declining.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>In May 2008, YPFB received a 97% interest in Transredes which handled considerable portions of mid-stream operations.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>In 2007 the Bolivian government spent $112 million to acquire controlling interests in two refineries previously controlled by Petrobras.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>YPFB has controlling interests in Bolivia’s upstream gas operations. It operates in Bolivia only. It does not have sole access to the country’s resources but has controlling interests in the resources. Foreign companies continue to have minority positions in Bolivia’s upstream resources. Gas production is not sufficient</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>--------</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>to meet export commitments.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>In May 2008 YPFB received a 97% interest in Transredes which handled considerable portions of the mid-stream.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>YPFB does not participate in other businesses.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>-65%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>($3.16)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$2.05</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs. costs incurred (%)</td>
<td></td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>86%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg profit margin (%)</td>
<td>74%</td>
<td></td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>86%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg debt profile (%)</td>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg return on assets (%)</td>
<td>42%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>1%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>The hydrocarbon sector in general and YPFB specifically are strategic assets that are used to further the development of Bolivia, through the industrialization of natural gas in Bolivia and from the investment of proceeds from natural gas exports to neighbors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>The Ministry of Energy is clearly in charge of policy. In addition the regulator is responsible for the awarding of concessions, licenses and contracts that are proposed by YPFB.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>6</td>
<td>Objectives include: Assumption of the country’s exploration and production activities as well as all activities related to industrialization and commercialization of the country’s hydrocarbons. Objectives are not ranked.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>There is no defined strategy to transfer non-commercial objectives.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>The Hydrocarbon Law stipulates that 2 to 4% of the revenue from the direct tax on production will be assigned to non-producing and producing provinces. No information available on revenue flows.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2007</td>
<td>5</td>
<td>Bolivia is not a candidate country for EITI. National Democratic Institute has operated there; other transparency programs do not appear to exist.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>Investment has been limited in recent years, as a consequence of tighter fiscal terms and nationalization of assets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>6</td>
<td>YPFB has not sought considerable debt in recent years. However, there are reports that the company is “cash strapped” and that the government is considering three financing sources: bonds, the National Treasury and/or investments by third party companies.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Flat to declining production in such a prolific hydrocarbon province is an indication of limitations of the fiscal regime and commercial frameworks.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>7</td>
<td>The hydrocarbons law (May 19, 2005) together with the subsequent nationalizations have dampened new investments. Nevertheless, Bolivia expects non-YPFB entities to fund about 69% of near term required capital investment.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>YPFB has controlling interests in all upstream companies in Bolivia with foreign companies as minority participants in some of them.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>YPFB may sign joint venture agreements, service contracts and other partnering arrangements but must have a controlling interest. YPFB seeks to take control of production at the wellhead and market it locally and for export markets.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>YPFB is offering for bids many turnkey contracts for much needed infrastructure development.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>YPFB seeks to participate in all elements of the hydrocarbon value chain, upstream, midstream and downstream.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes in minority positions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>YPFB must be a partner with a controlling equity interest. YPFB proposes contracts of association/service that later need to be approved.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>YPFB may sign service contracts for midstream assets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008 7</td>
<td>There are currently at least twelve large non-Bolivian companies operating in the upstream sector with expected investments accounting for about 69% of the near term required capital investment. NOC/NOC alliances may be the preference of the Government. The first alliance is one in which PDVSA owns 49% and YPFB owns 51% and it is slated to start operations. Other ventures are under discussion.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>NOC is completely state owned.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>No international operations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>Non-commercial activities still not clearly reported.</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007</td>
<td>4</td>
<td>Superintendency de Hidrocarburos (SH). Regulatory agency predates the current incarnation of YPFB. However, many of the contracting responsibilities have been taken over by YPFB. A plan was devised to create Petrobolivia as a new agency for NOC oversight but this has not materialized as yet.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2008</td>
<td>8</td>
<td>Disputes have been plentiful since 2005 and have required direct negotiations with the Bolivian government. The government has paid $402 million to nationalize five hydrocarbon companies. Procedures for dispute resolution going forward are not clear.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>$848.84</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
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<table>
<thead>
<tr>
<th>Indicator Category</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($M)</td>
<td></td>
<td></td>
<td>$485.57</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>YPFB provides an annual report which is quite comprehensive. In addition, the Ministry also provides information.</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Natural gas exports have been an important component of national income. A key question is whether production and export sales can be sustained. Bolivia has long hoped to diversify its natural gas customer base, currently dominated by Brazil. Plans to develop west-bound export rights, such as Pacific LNG, have failed as a result of territorial issues with Chile.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>1,445</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>71,325</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>50.70</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>-4.90%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>-1.88%</td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>440.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>26,132.85</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>4,945.66</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Audited (stated, but protocol is unclear)</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>8.90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.46%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>474.85%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
<th>Source Description</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2007</td>
<td>Energy Cooperation in the Western Hemisphere, Ch 16 (Foss, Wainberg, Volkov), CSIS</td>
<td><img src="http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/" alt="http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/" /></td>
</tr>
<tr>
<td>7</td>
<td>2008</td>
<td>Latin Petroleum Magazine</td>
<td>“Hydrocarbon Sector CAPEX to approximate $1,266 million,” by Pieto Stewart, <a href="http://www.latinpetroleum.com">www.latinpetroleum.com</a></td>
</tr>
</tbody>
</table>
Brazil: Petróleo Brasileiro S.A. (Petrobras)

Summary Report

<table>
<thead>
<tr>
<th>Corporate Governance Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Organization and Ownership</strong></td>
</tr>
<tr>
<td>Petrobras is a state-controlled company created pursuant to Law No.2,004. A majority of the voting capital must be owned by the Brazilian federal government, a state or a municipality.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Shares Controlled by Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Brazilian government controls 58% of Petrobras' shares.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domestic, International Exchanges for Equity Listings</th>
</tr>
</thead>
<tbody>
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<td>Petrobras is listed on the Bovespa (Brazilian Stock Exchange) and the New York Stock Exchange.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Board of Directors Structure</th>
</tr>
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<tbody>
<tr>
<td>There are nine directors elected for one year terms who can be re-elected. The five company/government related directors are: the CEO of Petrobras who is appointed by the government; 3 government ministers appointed by the government and one military officer-appointment source not disclosed. In addition to the BOD Petrobras has a permanent Fiscal Council as required by Brazilian corporate law composed of up to 5 members. The council is independent of management and external auditors. The council monitors management's activities and reviews annual reports and financial statements. The Brazilian government has the right to appoint the majority of the members of the council, one of which is appointed by the Minister of Finance representing the Brazilian treasury. Preferred and minority shareholders are entitled to elect one member each.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Board Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of the four “independent” directors, two are appointed by the government, one by the minority shareholder and one by the minority preferred shareholder. The minority shareholders are BNDES Bank and other Brazilian public sector entities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is chairman also minister of energy or otherwise appointed by head of state?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Chairman of the BOD is appointed by the government. The current Chairman was Minister of Mines and Energy (2003-2005) and Chief State Minister of the Civil Cabinet of the Presidency of the Republic of Brazil since 2005.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream Oil</strong></td>
</tr>
<tr>
<td>At the end of 2006 Petrobras accounted for 74% of Brazil's BOE proved reserves and 97% of BOE production. 86% of oil production and 56% of gas production is offshore. Petrobras BOE production grew 17% between 2004 and 2006. Non-NOC participants are permitted in the upstream oil and gas exploration sectors (Petrobras was allowed to retain all producing properties). Although non-NOC participants are not required to partner with Petrobras most of them do so as Petrobras has had superior technical information on tendered exploration blocks. Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Midstream Oil</th>
</tr>
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<tbody>
<tr>
<td>Petrobras dominates this sector. Operations include 10,104 miles of oil and refined products pipelines; 24 marine terminals operating 5000 vessels per day and a shipping fleet of 51 vessels with deadweight tonnage of 2.6 million tons. Petrobras has preferential access to oil and product pipelines based on historical levels of usage which is assigned by regulator ANP. The remainder (not much in practicality) is available to third parties on a non-discriminatory basis.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Downstream Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrobras operates 11 of Brazil's 13 refineries with primary distillation capacity of close to 2 million B/D. Although 3rd parties, foreign and domestic, are permitted to own and operate refineries in Brazil, PBR accounts for 98% of Brazil's refinery production. In 2/2005 PBR signed an agreement with PDVSA to build a new refinery in northeastern Brazil. That project has reportedly suffered delays due to disagreements between the two countries. Refinery utilization has averaged 86% of capacity with 70% of feedstock coming from company production. 85% of refined products output goes to the domestic market. Operating income/total revenues in this segment is low (3%) due in part to price subsidies. The company supplies about 45% of the gasoline and diesel used in its owned/franchised service stations. The retail product segment is where Petrobras experiences the most competition domestically.</td>
</tr>
</tbody>
</table>
**Upstream Natural Gas**
At the end of 2006 Petrobras accounted for 74% of Brazil’s BOE proved reserves and 97% of BOE production. 86% of oil production and 56% of gas production is offshore. Petrobras BOE production grew 17% between 2004 and 2006. Non-NOC participants are permitted in the upstream oil and gas exploration sectors (Petrobras was allowed to retain all producing properties). Although non-NOC participants are not required to partner with Petrobras most of them do so as Petrobras has had superior technical information on tendered exploration blocks. Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006.

**Midstream Natural Gas**
Petrobras owns and operates 9,771 miles of gas pipelines including cross-border pipelines and gas processing capacity of 1083 MMCF/D. Although 3rd parties have the right to construct, operate and ship on gas pipelines (and facilities connected with their usage) PBR continues to be the dominant player. They have 3rd party partners in the Bolivia-Brazil Pipeline and a number of others. In June 2006 Sinopec began construction on the Gasene pipeline. Petrobras has preferential access to gas pipelines based on its historical level of usage which is formally assigned by the ANP. Excess capacity is made available to 3rd parties on a non-discriminatory basis.

**Downstream Natural Gas**
Petrobras’ petrochemical operations consist of investment interests ranging from 8-85% in 9 petrochemical companies. It invests in projects integrated with its refineries. Petrobras also owns minority interests in 19 gas distribution companies located in 19 Brazilian states.

**Other**
Petrobras has significant investments in thermoelectric plants in Brazil which caused its Gas and Supply Segment to lose money in 2006. Petrobras has gas midstream assets in Argentina. It also has $2 billion of refining assets in Argentina and the US at the end of 2006. Petrobras has significant service station operations in Argentina, Bolivia, Uruguay, Paraguay and Colombia of which 70% is operated. It has petrochemical assets in Argentina and gas distribution assets in Uruguay.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Value (2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>Average Proved Oil Reserves (MM Barrels)</td>
<td>9,693</td>
</tr>
<tr>
<td>Upstream</td>
<td>Average Proved Gas Reserves (BCF)</td>
<td>11,788</td>
</tr>
<tr>
<td>Upstream</td>
<td>Average Annual Oil Production (MM Barrels)</td>
<td>629</td>
</tr>
<tr>
<td>Upstream</td>
<td>Average Annual Natural Gas Production (BCF)</td>
<td>724</td>
</tr>
<tr>
<td>Downstream</td>
<td>Average Annual Refinery Production (MM Barrels)</td>
<td>678</td>
</tr>
</tbody>
</table>

### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Value (2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated</td>
<td>Average Total Revenues ($Millions)</td>
<td>73,304</td>
</tr>
<tr>
<td>Consolidated</td>
<td>Average Total Assets ($Millions)</td>
<td>80,133</td>
</tr>
<tr>
<td>Consolidated</td>
<td>Average EBIT ($Millions)</td>
<td>29,398</td>
</tr>
<tr>
<td>Consolidated</td>
<td>Average Net Income ($Millions)</td>
<td>9,787</td>
</tr>
</tbody>
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### Categorization Indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>63</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>78</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>88</td>
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<tr>
<td>Resource Endowment</td>
<td>3</td>
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<tr>
<td>Oil Dependency</td>
<td>98</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>76</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>71</td>
</tr>
<tr>
<td>Average</td>
<td>72</td>
</tr>
</tbody>
</table>
Petrobras has had several significant oil and gas discoveries: oil in the Tupi field and gas in the Santos basin. However, the technology to develop these finds is not "on the shelf" and production is at least 5 years away (probably longer). Petrobras is expected to grow production about 6% p.a. over the next few years. Brazil has attained investment grade status and gasoline and diesel prices were recently raised 10%. The government is studying a tax rate increase for Petrobras. In addition the company is calling for a change in Brazil's commercial frameworks: it would like to move to production sharing contracts instead of the current concession system that allows investors to book reserves. The ANP removed pre-salt fields from its annual auction after the Tupi discovery was announced.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>(Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>1</td>
<td>Petrobras is Brazil's sole NOC in the oil and gas sector.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1</td>
<td>Petrobras is a state-controlled company created pursuant to Law No.2,004. A majority of the voting capital must be owned by the Brazilian federal government, a state or a municipality.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
<td>1</td>
<td>The Brazilian government controls 58% of Petrobras' shares.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
<td>1</td>
<td>Petrobras is listed on the Bovespa (Brazilian Stock Exchange) and the New York Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006</td>
<td>1</td>
<td>Petrobras is listed on the Bovespa (Brazilian Stock Exchange) and the New York Stock Exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
<td>1</td>
<td>There are nine directors elected for one year terms who can be re-elected. The five company/government related directors are: the CEO of Petrobras who is appointed by the government; 3 government ministers appointed by the government and one military officer-appointment source not disclosed. In addition to the BOD Petrobras has a permanent Fiscal Council as required by Brazilian corporate law composed of up to 5 members. The council is independent of management and external auditors. The council monitors management's activities and reviews annual reports and financial statements. The Brazilian government has the right to appoint the majority of the members of the council, one of which is appointed by the Minister of Finance representing the Brazilian treasury. Preferred</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td><strong>Corporate Governance</strong></td>
<td>Board of Directors (BOD) Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
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<td>The Chairman of the BOD is appointed by the government. The current Chairman was Minister of Mines and Energy (2003-2005) and Chief State Minister of the Civil Cabinet of the Presidency of the Republic of Brazil since 2005.</td>
<td></td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>Board of Directors (BOD) Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>1</td>
<td>Of the four &quot;independent&quot; directors, two are appointed by the government, one by the minority shareholder and one by the minority preferred shareholder. The minority shareholders are BNDES Bank and other Brazilian public sector entities.</td>
<td></td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>Board of Directors (BOD) Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2006</td>
<td>1</td>
<td>See BOD Structure above.</td>
<td></td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>Role of BOD Description of role and policy statements</td>
<td>2006</td>
<td>1</td>
<td>Elects one president and up to 6 executive officers; Appoint independent auditors; Monitor code of ethics/business conduct policies compliance; formal processes for strategic and business planning, capital budgeting, financing overseen by BOD.</td>
<td></td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>Role of BOD Based on available information, does BOD have power, impact, decision making authority</td>
<td>2006</td>
<td>1</td>
<td>BOD has limited authority as important roles are shared with the Fiscal Council and other government ministries and some major decisions are controlled by the shareholders. Shareholders approve financial statements (with Fiscal Council); Approve debt issuance; Declare dividends; Approve registration of securities and set the aggregate compensation payable to directors and executive officers. BOD allocates the compensation among the directors and executive officers. The Fiscal Council reviews financial and operating performance. The Ministry of Planning, Budget &amp; Management, Ministry of Finance, Ministry of Mines and Energy and the Brazilian Congress (capital budget approval) participate in the</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2006</td>
<td>1</td>
<td>The BOD recruits and selects the chief executive officer/president and senior management.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2006</td>
<td>1</td>
<td>Petrobras has a predictable, formal annual capital budgeting process. However, the Ministry of Planning, Budget &amp; Management, Ministry of Finance, Ministry of Mines and Energy participate in the company's strategic/business planning and capital budgeting. The Brazilian Congress must approve the company's annual capital budget.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2006</td>
<td>1</td>
<td>It is a predictable annual process but it is not separate from the national budget process. See above.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2006, 2007</td>
<td>1, 8</td>
<td>About 80% of Petrobras’ (PBR) domestic upstream exploration activities are carried out with other third party entities pursuant to a regulator (ANP) conducted bidding process. Although third parties have the right to construct, operate and ship on oil pipelines (and facilities connected with their usage) PBR does not mention any partners in these activities or competitors. Although third parties have the right to construct, operate and ship on gas pipelines (and facilities connected with their usage) PBR continues to be the dominant player. They have third party partners in the Bolivia-Brazil Pipeline and a number of others. In June 2006 Sinopec began construction on the Gasene pipeline. Although third parties, foreign and domestic, are permitted to own and operate refineries in Brazil, PBR accounts for 98% of Brazil’s refinery production.</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006</td>
<td>1</td>
<td>Consolidate/increase competitive advantages in Brazilian/South American oil and oil products market; selectively expand international activities in an integrative manner; develop/lead the domestic natural gas market and act in an integrated manner in the South American gas and power market; selectively expand petrochemicals activities; selectively perform in renewable energy market.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2006</td>
<td>1</td>
<td>Historically PBR has had sufficient cash flow from operations to fund its investment portfolio and has reported oil and gas production increases and increases in refinery throughput as it modifies its refineries to process heavier Brazilian crude oils.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>1</td>
<td>The financial auditors are Ernst &amp; Young and KPMG; DeGolyer &amp; MacNaughton is the reserves auditor.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2006</td>
<td>1</td>
<td>In 2006 77% of PBR's employees were employed at the parent company. Of parent company employees, 67% had mid-level positions related to operations and administrative support; 31% were upper-level engineers and administrators, and the remainder were maritime employees. There are two unions with which PBR negotiates annual collective bargaining agreements. There have been no major labor strikes since 1995.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2006</td>
<td>1</td>
<td>PBR has a formal human resources department and emphasizes employee training and development. It spent $151 million on employee training in 2006. It has merit based promotions and a profit-sharing plan with predetermined criteria. Employee profit sharing distributions were $560 million in 2006.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008</td>
<td>4</td>
<td>On its web site Petrobras provides quantitative data on its poverty relief and health contributions. These contributions expanded significantly in 2007.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2006</td>
<td>1, 2, 3</td>
<td>In addition to taxes, dividends and payroll, PBR in 2006 spent $119 million on direct social/economic programs in Brazil and about $1.4 billion in price subsidies.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td>1</td>
<td>At the end of 2006 Petrobras accounted for 74% of Brazil's BOE proved reserves and 97% of BOE production. 86% of oil production and 56% of gas production is offshore. Petrobras BOE production grew 17% between 2004 and 2006. Non-NOC participants are permitted in the upstream oil and gas exploration sectors (Petrobras was allowed to retain all producing properties). Although non-NOC participants are not required to partner with Petrobras most of them do so as Petrobras has had superior technical information on tendered exploration blocks. Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2006</td>
<td>1</td>
<td>Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006</td>
<td>1</td>
<td>Petrobras dominates this sector. Operations include 10,104 miles of oil and refined products pipelines; 24 marine terminals operating 5000 vessels per day and a shipping fleet of 51 vessels with deadweight tonnage of 2.6 million tons. Petrobras has preferential access to oil and product pipelines based on historical levels of usage which is assigned by regulator ANP. The remainder (not much in practicality) is available to third parties on a non-discriminatory basis.</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>Petrobras operates 11 of Brazil's 13 refineries with primary distillation capacity of close to 2 million B/D. Although 3rd parties, foreign and domestic, are permitted to own and operate refineries in Brazil, PBR accounts for 98% of Brazil's refinery production. In 2/2005 PBR signed an agreement with PDVSA to build a new refinery in northeastern Brazil. That project has reportedly suffered delays due to disagreements between the two countries. Refinery utilization has averaged 86% of capacity with 70% of feedstock coming from company production. 85% of refined products output goes to the domestic market. Operating income/total revenues in this segment is low (3%) due in part to price subsidies. The company supplies about 45% of the gasoline and diesel used in its owned/franchised service stations. The retail product segment is where Petrobras experiences the most competition domestically.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>At the end of 2006 Petrobras accounted for 74% of Brazil's BOE proved reserves and 97% of BOE production. 86% of oil production and 56% of gas production is offshore. Petrobras BOE production grew 17% between 2004 and 2006. Non-NOC participants are permitted in the upstream oil and gas exploration sectors (Petrobras was allowed to retain all producing properties). Although non-NOC participants are not required to partner with Petrobras most of them do so as Petrobras has had superior technical information on tendered exploration blocks. Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
<td>1</td>
<td>Petrobras owns and operates 9,771 miles of gas pipelines including cross-border pipelines and gas processing capacity of 1083 MMCF/D. Although 3rd parties have the right to construct, operate and ship on gas pipelines (and facilities connected with their usage) PBR continues to be the dominant player. They have 3rd party partners in the Bolivia-Brazil Pipeline and a number of others. In June 2006 Sinopec began construction on the Gasene pipeline. Petrobras has preferential access to gas pipelines based on its historical level of usage which is formally assigned by the ANP. Excess capacity is made available to 3rd parties on a non-discriminatory basis.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>Petrobras' petrochemical operations consist of investment interests ranging from 8-85% in 9 petrochemical companies. It invests in projects integrated with its refineries. Petrobras also owns minority interests in 19 gas distribution companies located in 19 Brazilian states.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>Petrobras has significant investments in thermoelectric plants in Brazil which caused its Gas and Supply Segment to lose money in 2006. These assets are IPPs that the Brazilian government took from operators as a consequence of disputes associated with pricing the dispatched electricity when Brazil's drought in the late 1990s ended and hydro facilities resumed operations. Petrobras has gas midstream assets in Argentina. It also has $2 billion of refining assets in Argentina and the US at the end of 2006. It has significant service station operations in Argentina, Bolivia, Uruguay, Paraguay and Colombia of which 70% is operated. It has petrochemical assets in Argentina and gas distribution assets in Uruguay. It also is a significant producer of biofuels utilizing sugarcane.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg reserve replacement rate (BOE, %)</td>
<td>89%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg reserve replacement cost ($/BOE)</td>
<td>$11.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Change in BOE reserves (%)</td>
<td>-4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Change in BOE production (%)</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>163%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream exploration and production expenses ($/BOE)</td>
<td>$10.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg production costs excluding production taxes ($/BOE)</td>
<td>$5.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream after-tax income/revenues (%)</td>
<td>36%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>$28.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg income after all taxes ($/BOE)</td>
<td>$13.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg effective tax rate (%)</td>
<td>52%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg operating cash flow vs costs incurred (%)</td>
<td>163%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance After tax return on assets</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg refinery utilization rate (%)</td>
<td>86%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Change in total refining production (%)</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Change in refinery capacity (%)</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg income from operations per unit volume ($/barrel)</td>
<td>$2.90</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>148%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>130%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>130%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>43%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2006</td>
<td>1</td>
<td>Although not specifically related to national development objectives, Brazil has a comprehensive hydrocarbon law (Oil Law No. 9,478) enacted in 1995 which enabled competition in all aspects of the oil and gas industry in Brazil.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2006</td>
<td>1, 10</td>
<td>Commercial, regulatory and policy functions are clearly separated in the upstream oil and gas sector. In the midstream and downstream oil sector, commercial functions are separate but policy and regulatory functions are combined in ministries. With respect to the midstream and downstream natural gas sectors, debates are underway in Brazil regarding legislative bills that would define the regulatory</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006, 2007</td>
<td>1, 8, 9</td>
<td>Historically PBR has been able to fund capital expenditures from operating cash flow. With respect to non-NOC participants, the greatest level of participation is in the upstream sector. PBR continues to dominate all the other sectors with the exception of retail oil products distribution. Lack of a clear regulatory framework in the gas midstream sector is a disincentive to non-NOC investment in that sector.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2008</td>
<td>7</td>
<td>PBR supports the EITI initiative.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2008</td>
<td>13</td>
<td>Law 9478, 1997 and Law 7990, 1989 regulate the sharing of royalties between national and sub-national levels of government. Brazil does not have a petroleum fund. The Ministry of Finance publishes detailed accounts, but no breakdown is given for petroleum revenue.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006</td>
<td>1</td>
<td>Consolidate/increase competitive advantages in Brazilian/South American oil and oil products market; selectively expand international activities in an integrative manner; develop/lead the domestic natural gas market and act in an integrated manner in the South American gas and power market; selectively expand petrochemicals activities; selectively perform in renewable energy market.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006</td>
<td>1, 2</td>
<td>Oil, gas and refined products prices were deregulated in 2002. However, from time to time the government pressures PBR into price subsidies which they hope to phase out at a later date. There are also various price controls on gas.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006</td>
<td>1</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2008</td>
<td>13</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006</td>
<td>1</td>
<td>Consolidate/increase competitive advantages in Brazilian/South American oil and oil products market; selectively expand international activities in an integrative manner; develop/lead the domestic natural gas market and act in an integrated manner in the South American gas and power market; selectively expand petrochemicals activities; selectively perform in renewable energy market.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2006</td>
<td>1</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
</tr>
<tr>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2006, 2007</td>
<td>1, 8, 9</td>
<td>Historically PBR has been able to fund capital expenditures from operating cash flow. With respect to non-NOC participants, the greatest level of participation is in the upstream sector. PBR continues to dominate all the other sectors with the exception of retail oil products distribution. Lack of a clear regulatory framework in the gas midstream sector is a disincentive to non-NOC investment in that sector.</td>
<td></td>
</tr>
<tr>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>4</td>
<td>PBR is investment grade at Baal (Moody’s). The Brazil sovereign rating was recently raised to investment grade which could prompt an increase in PBR's rating.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2006</td>
<td>1</td>
<td>They appear to be adequate as there is significant non-NOC interest and activity in the upstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006</td>
<td>1</td>
<td>Brazil has a comprehensive hydrocarbon law (Oil Law No. 9,478) enacted in 1995 which enabled competition in all aspects of the oil and gas industry in Brazil.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>10</td>
<td>Details of numerous upstream contracts entered into by non-NOCs are available at the regulator's (ANP) website.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Concessions.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>PBR is a vertically integrated company.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>2006</td>
<td>1</td>
<td>12%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>2006</td>
<td>1</td>
<td>-19%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>2006</td>
<td>1</td>
<td>7%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>2006</td>
<td>1</td>
<td>192%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>2006</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>2006</td>
<td>186%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2006, 2007</td>
<td>1, 11</td>
<td>Numerous.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006, 2007</td>
<td>1, 2, 8, 9</td>
<td>Although non-NOC participants are not required to partner with Petrobras most of them do so as Petrobras has had superior technical information on tendered exploration blocks.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006, 2007</td>
<td>1, 2, 8, 9</td>
<td>Dominated by Petrobras although third parties permitted in these sectors. Partnership with PBR is not required. Lack of a regulatory framework is a disincentive to investment in the gas midstream sector. Refined product price subsidies are a disincentive to investment in the downstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2006</td>
<td>1</td>
<td>Highly prevalent in the upstream and international sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2006</td>
<td>1</td>
<td>Non-government shareholders own 44% (voting) of PBR</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006</td>
<td>1</td>
<td>Petrobras operates internationally with upstream operations in Argentina, Bolivia, Venezuela, Ecuador, Peru, Colombia, US Gulf of Mexico, W. Africa, Iran and Turkey. International production accounted for 10% of total production in 2006. Petrobras has gas midstream assets in Argentina. It also has $2 billion of refining assets in Argentina and the US at the end of 2006. It has significant service station operations in Argentina, Bolivia, Uruguay, Paraguay and Colombia of which 70% is operated. It has petrochemical assets in Argentina and gas distribution assets in Uruguay.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2006, 2007</td>
<td>1, 11</td>
<td>The upstream regulator is the ANP. Although its performance has been improving over time, some observers believe it is understaffed and underfunded. Outside the ANP, regulatory functions are typically housed in ministries in the other sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2006</td>
<td>1</td>
<td>In the upstream partially; PBR still has an advantage over ANP with respect to technical information. PBR dominates all other sectors except for retail oil products distribution.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2006, 2007</td>
<td>1, 11</td>
<td>ANP data provision has improved and further improvement efforts are continuing. Other data is provided by relevant ministries.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>2</td>
<td>About $1.4 billion annually in recent years.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2006</td>
<td>3</td>
<td>Disclosure on company website.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$1,429.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$1,307.39</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1, 6</td>
<td>Good with respect to NOC SEC Form 20Fs. Country data is improving.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2006, 2008</td>
<td>1</td>
<td>Petrobras was incorporated in Brazil in 1953. In 1995 the government permitted competition in all sectors of the Brazilian oil and gas industry and PBR was partially privatized thereafter.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Petrobras has had several significant oil and gas discoveries: oil in the Tupi field and gas in the Santos basin. However, the technology to develop these finds is not &quot;on the shelf&quot; and production is at least 5 years away (probably longer). Petrobras is expected to grow production about 6% p.a. over the next few years. Brazil has attained investment grade status and gasoline and diesel prices were recently raised 10%. The government is studying a tax rate increase for Petrobras. In addition the company is calling for a change in Brazil's commercial frameworks: it would like to move to production sharing contracts instead of the current concession system that allows investors to book reserves. The ANP removed pre-salt fields from its annual auction after the Tupi discovery was announced. Finally, a major, and sensitive, issue for Brazil has been the shift in policies in Bolivia and impacts on natural gas deliveries through the Bolivia-Brazil pipeline. Bolivia's nationalization of upstream assets affected Petrobras but, more importantly, the lack of confidence associated with B-B deliveries has triggered a shift toward LNG. Bolivia is becoming less comfortable with Brazil's dominance of its natural gas sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>56,069</td>
<td></td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>2013</td>
<td></td>
<td>25,535</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>2013</td>
<td></td>
<td>20.13</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>2013</td>
<td></td>
<td>-11.06%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>2013</td>
<td></td>
<td>-1.55%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>2013</td>
<td></td>
<td>12,623.83</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>2013</td>
<td></td>
<td>12,889.53</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>2013</td>
<td></td>
<td>14,846.16</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>2013</td>
<td></td>
<td>Audited in part through PBR.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>2013</td>
<td></td>
<td>77%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>2013</td>
<td></td>
<td>91%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>2013</td>
<td></td>
<td>107%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>2013</td>
<td></td>
<td>100%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>2013</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>2013</td>
<td></td>
<td>85.03%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>2013</td>
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<td>99.99%</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>78.97%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<tr>
<td>Source #</td>
<td>Year of Source</td>
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<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2006</td>
<td>Petrobras. See social responsibility.</td>
<td><a href="http://www.petrobras.com">www.petrobras.com</a></td>
<td></td>
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<tr>
<td>4</td>
<td>2007</td>
<td>Petrobras</td>
<td><a href="http://www.petrobras.com">www.petrobras.com</a></td>
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<td>5</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
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<td>7</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
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<tr>
<td>10</td>
<td>2008</td>
<td>Results of bidding rounds at <a href="http://www.anp.br">www.anp.br</a>.</td>
<td><a href="http://www.anp.br">www.anp.br</a></td>
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<td></td>
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<tr>
<td>13</td>
<td>2008</td>
<td>Ministério da Fazenda</td>
<td><a href="http://www.fazenda.gov.br">www.fazenda.gov.br</a></td>
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</tbody>
</table>
Colombia: Ecopetrol

Summary Report

**Corporate Governance Highlights**

**Corporate Organization and Ownership**
State-owned, public stock-holding corporation.

**Shares Controlled by Government**
80%

**Domestic, International Exchanges for Equity Listings**
Bolsa de Valores de Colombia

**Board of Directors Structure**
Shareholders Assembly, Statutory Auditor, BOD, President, Support for President, Corporate Labor Director, Human Development Director, Internal Control Office, COO, Finance Vice-President, Planning and Risk Control General Director

**Independent Board Members**
Unclear. Some members may be independent and external to either Ecopetrol or government.

**Is chairman also minister of energy or otherwise appointed by head of state?**
Unclear. 2 members of the current BOD represent ministries (Mines and Energy and Finance).

**Operations Highlights**

**Upstream Oil**
Ecopetrol operates only in Colombia, and, with recent bid rounds, Brazil and Peru. Access to the country's resources is provided to other companies such as BP, Occidental, Petrobras, Canada's Nexen, Canada's Petrobank through licensing arrangements.

**Midstream Oil**
Ecopetrol operates 5 major oil pipelines, 4 connecting production fields to the Caribbean export terminal. One pipeline transports oil from the Atlantic to the Pacific (and also carries oil produced in Ecuador).

**Downstream Oil**
2 refineries are owned and operated by Ecopetrol.

**Upstream Natural Gas**
Ecopetrol can operate in upstream natural gas. Colombia has natural gas reserves in 18 basins, 7 of which have active production. Chevron is the largest natural gas producer in Colombia. In 2004 BP was awarded a natural gas production license.

**Midstream Natural Gas**
Ecopetrol does not appear to have asset positions in natural gas.

**Downstream Natural Gas**
Same as above.

**Other**
Ecopetrol does not engage in business outside of its core oil and gas operations.

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>1,496</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>3,994</td>
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<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>543</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>246</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>92</td>
</tr>
</tbody>
</table>

**Financial Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>6,487</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>14,941</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>4,989</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>1,214</td>
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Categorization Indicators

<table>
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<th>Categories</th>
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<tr>
<td>Corporate Governance</td>
<td>56</td>
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<tr>
<td>Public Sector Governance</td>
<td>82</td>
</tr>
<tr>
<td>Commercialization</td>
<td>83</td>
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<tr>
<td>Fiscal Regimes</td>
<td>88</td>
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<tr>
<td>Resource Endowment</td>
<td>0</td>
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<tr>
<td>Oil Dependency</td>
<td>96</td>
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<tr>
<td>Local Contribution</td>
<td>10</td>
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<td>Sector and Trade Openness</td>
<td>73</td>
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<tr>
<td>Average</td>
<td>68</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

Columbia’s internal political situation appears to be improving as efforts are made to resolve the long standing conflicts between FARC and ELN and the government. Following a peak in attacks against Colombia’s oil installations in 2001, and a collapse in oil production by nearly 25%, stabilization efforts coupled with regional and community development efforts, coordinated security and deep improvements in the hydrocarbon fiscal regime, have resulted in a robust turnaround. Colombia’s oil production has grown and investment flows have strengthened. Transparency has increased and revenues are invested more constructively in the country’s development, in particular in locations where oil installations are operated. Still to be done are value creation around the country’s natural gas resources, supported by a facilitating framework to include natural gas price discovery and additions to infrastructure.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
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<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2007</td>
<td>1</td>
<td>Ecopetrol is 80% state-owned and 20% owned by sovereign companies and individuals.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2007</td>
<td>1</td>
<td>State-owned, public stock-holding corporation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>3</td>
<td>80%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>Bolsa de Valores de Colombia</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>No data</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2007</td>
<td>1</td>
<td>No; however, Ecopetrol is slated to offer shares outside of Colombia as part of the privatization/capitalization program.</td>
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<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2007</td>
<td>3</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>Shareholders Assembly, Statutory Auditor, BOD, President, Support for President, Corporate Labor Director, Human Development Director, Internal Control Office, COO, Finance Vice-President, Planning and Risk Control General Director</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Unclear. 2 members of the current BOD represent ministries (Mines and Energy and Finance).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
<td>Unclear. Some members may be independent and external to either Ecopetrol or government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
<td>2007</td>
<td>1</td>
<td>The President of the BOD serves 1 year.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>1</td>
<td>The BOD is responsible for organization and supervision of the activities the company and its members are engaged in.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making</td>
<td>2007</td>
<td>1</td>
<td>The BOD has sufficient power to enforce the codes of conduct, engage in high level decision making, and has direct impact on</td>
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<td>------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007</td>
<td>The government sets and announces the amounts of royalties and taxes. The company targets revenues and manages its budget independently.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>Ecopetrol partners with IOCs and other companies participating in Colombia's upstream and associated oil and gas infrastructure. Ecopetrol also formed a joint venture with local palm oil producers to build a biodiesel plant.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>&quot;To discover new energy sources and to transform them into value for their clients and shareholders by protecting the environment and ensuring processes safety and people's integrity&quot;.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>1 There is some data available.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>1 HR promotion and professional development opportunities are established and offered and applied equally among employees.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2007</td>
<td>3</td>
<td>The NOC is committed to the economic, social and environmental development of Colombia. Ecopetrol creates targets and scorecards to measure the progress and attainability of such plans.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2007</td>
<td>1</td>
<td>No financial reporting available. Principles include: identification of groups of interests, creation of solutions to these groups, support relevant programs of these groups, ethical behavior to gain credibility, and notification of results to the groups.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country’s resources?</td>
<td>2007</td>
<td>3</td>
<td>Ecopetrol operates only in Colombia and, with a recent bid round, in Brazil and Peru. Access to the country’s resources is provided to other companies such as BP, Occidental, Petrobras, Canada’s Nexen, Canada’s Petrobank through licensing arrangements.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2007</td>
<td>3</td>
<td>No</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>2</td>
<td>Ecopetrol operates 5 major oil pipelines, 4 connecting production fields to the Caribbean export terminal. One pipeline transports oil from the Atlantic to the Pacific (and also carries oil produced in Ecuador).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>2</td>
<td>2 refineries are owned and operated by Ecopetrol.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>2</td>
<td>Ecopetrol can operate in upstream natural gas. Colombia has natural gas reserves in 18 basins, 7 of which have active production. Chevron is the largest natural gas producer in Colombia. In 2004 BP was awarded a natural gas production license.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007</td>
<td>2</td>
<td>Ecopetrol does not appear to have asset positions in natural gas.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>2</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2007</td>
<td>2</td>
<td>Ecopetrol does not engage in business outside of its core oil and gas operations.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td>No data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>$9.09</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td>$4.57</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>4%</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
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### Colombia: Ecopetrol

<table>
<thead>
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<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>77%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>19%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>57%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>31%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>5%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007 3</td>
<td>The hydrocarbon sector in Colombia is managed and regulated by Agencia Nacional de Hidrocarburos (National Hydrocarbons Agency or ANH) which was created to separate Ecopetrol and the state from these activities.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2007 1</td>
<td>Policy making activities are responsibilities of the president of Ecopetrol and the Board of Directors; commercial operations are monitored by Ecopetrol's Internal Control Management; and regulation is done by the Agencia Nacional de Hidrocarburos.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007 1</td>
<td>Ecopetrol's objectives are published but they are not ranked.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2007</td>
<td>3</td>
<td>Agencia Nacional de Hidrocarburos is responsible for collecting hydrocarbon revenues belonging to the state and allocating them to the different entities. Royalties are shared among producing and transporting municipalities and a part is set aside in the Fondo Nacional de Regalías to be used for development projects. However detailed information on the financial flows does not appear to be publicly available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2007, Current</td>
<td>5,6</td>
<td>Colombia is not a candidate country for EITI. National Democratic Institute has been quite active, and Colombia has a highly acknowledged national chapter of Transparency International.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007</td>
<td>3</td>
<td>According to ANH, Colombia signed 11 new contracts during the first half of 2007, presenting a total of US$2 billion in foreign direct investment.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2007</td>
<td>1</td>
<td>The fiscal regime along with the modified Organic Structure of Ecopetrol, allows for investment grade NOC credit ratings.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2007</td>
<td>1</td>
<td>Under the new fiscal regime in 2003, the incentives to attract foreign direct investment have increased. A modification to the Organic Structure of the Colombian Oil Company resulted in larger flows of FDI to the oil sector activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007</td>
<td>3</td>
<td>The Colombian government has taken substantial measures to attract more investment. It allows foreign oil companies to own 100% stakes in oil ventures, established a lower royalty rate, provided longer expiration licenses, and is forcing Ecopetrol to compete with private firms. The reforms enabled Colombia to attain a higher level of exploration and drilling.</td>
</tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007</td>
<td>3</td>
<td>Yes, in the first half of 2007, 11 contracts were signed with foreign oil companies to invest on exploration and production.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2007</td>
<td>3</td>
<td>Exploration, drilling, transportation and refineries, Ecopetrol may be a partner, but it is not required.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2007</td>
<td>3</td>
<td>11 new exploration and production contracts signed with foreign oil companies in the first half of 2007.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2007</td>
<td>1</td>
<td>Vertical integration</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2007</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007</td>
<td>2</td>
<td>Yes. The Colombian government would like more participation, and has particularly targeted smaller companies for marginal fields in attempts to increase diversity.</td>
</tr>
</tbody>
</table>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>1</td>
<td>The government has allowed foreign oil companies to participate in exploration and production and reduced the royalty rates. Both foreign oil companies and the NOC are forced to become more competitive, or create alliances.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>1</td>
<td>Competition in mid- and downstream is open to non-NOC participants and they are not required to partner with the NOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007</td>
<td>1</td>
<td>Ecopetrol/BP, Ecopetrol/Chevron, Ecopetrol/Petrobras, Ecopetrol/PDVSA. All of the alliances appear to be healthy and successful following the changes implemented by the government through ANH.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2007</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007</td>
<td>3</td>
<td>Agencia Nacional de Hidrocarburos ANH (national hydrocarbons regulatory agency). ANH is fairly well funded and well staffed as a regulatory body. ANH personnel have received both international training and engaged in domestic professional and technical development programs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2007</td>
<td>3</td>
<td>ANH sets the prices at which crude oil must be sold for internal refinery and domestic use. ANH sets the production volumes that are to be sold for domestic use.</td>
</tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2007</td>
<td>3</td>
<td>ANH actively participates in the creation of energy policy directly with the federal/state government. ANH manages the participation of the State in all exploration and production contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2007</td>
<td>3</td>
<td>ANH has established policies that enable an efficient course of action when issues regarding development and access to hydrocarbon resources are presented.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$2,459.83</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$1,068.05</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Reasonably good data is provided. As Ecopetrol's share sales proceed, more data should be forthcoming.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>Ecopetrol was created on 1951 as Empresa Colombiana de Petroleos. In 1970 it was recognized as an industrial and commercial state enterprise. In 2003 the organic structure was modified and the company's name changed to Ecopetrol SA.</td>
</tr>
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<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Columbia’s internal political situation appears to be improving as efforts are made to resolve the long standing conflicts between FARC and ELN and the government. Following a peak in attacks against Colombia’s oil installations in 2001, and a collapse in oil production by nearly 25%, stabilization efforts coupled with regional and community development efforts, coordinated security and deep improvements in the hydrocarbon fiscal regime, have resulted in a robust turnaround. Colombia's oil production has grown and investment flows have strengthened. Transparency has increased and revenues are invested more constructively in the country's development, in particular in locations where oil installations are operated. Still to be done is value creation around the country's natural gas resources, supported by a facilitating framework to include natural gas price discovery and additions to infrastructure.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>6,074</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>111,571</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>9.03</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>18.89%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>3.70%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>1,510.00</td>
<td></td>
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</tr>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>4,414.33</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td>Other Factors</td>
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<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
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<td>66.49%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
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<td>99.98%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
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<td>193.32%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>2</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Colombia</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Colombia/Background.html">http://www.eia.doe.gov/emeu/cabs/Colombia/Background.html</a></td>
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<tr>
<td>4</td>
<td>2007</td>
<td>International Monetary Fund</td>
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</table>
### Corporate Governance Highlights

**Corporate Organization and Ownership**
PetroEcuador is fully sovereign owned.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
Not listed

**Board of Directors Structure**
The BOD for PetroEcuador is called the Directorial and is formed by the Minister of Energy and Mines, the President of PetroEcuador appointed by the President of Ecuador, and the Minister of Economics and Finance.

**Independent Board Members**
No member of the BOD is external. They are all appointed by the President of Ecuador as part of the presidential administration team.

**Is chairman also minister of energy or otherwise appointed by head of state?**
No

### Operations Highlights

**Upstream Oil**
PetroEcuador only operates in its home country. Other international oil companies, such as Andes and Repsol, have access to Ecuador's resources.

**Midstream Oil**
Ecuador has three major pipelines. Oleducto Trans Ecuadorian is a 310-mile pipeline with 400,000 B/D capacity. Oleducto de Crudos Pesados is a 300-mile pipeline with 450,000 B/D capacity. Ecuador uses TransAndino pipeline (Colombia) to transport crude oil to/from Colombia.

**Downstream Oil**
Ecuador has three oil refineries with a total of 176,000 B/D combined capacity. The country is a net importer of products and is trying to increase domestic production of lighter products.

**Upstream Natural Gas**
"There is only one large scale natural gas project in Ecuador: Amistad, located in the Gulf of Guayaquil, which produces 30 million cf/d. Ecuador's oil operations release large amounts of natural gas, but this is mostly flared due to the lack of infrastructure for capture."

**Midstream Natural Gas**
No data

**Downstream Natural Gas**
All natural gas produced by Amistad flows to Noble's Machala facility, a 130 MW onshore gas-fired power plant that supplies electricity to the Guayaquil region.

**Other**
Electric power generation
### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>90</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
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### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
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<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
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<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
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<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>2,122</td>
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<tr>
<td>Consolidated Average Net Income ($Millions)</td>
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### Categorization Indicators

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<th>Categories</th>
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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
<td>39</td>
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<td>Commercialization</td>
<td>66</td>
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<td>Fiscal Regimes</td>
<td>38</td>
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<td>Resource Endowment</td>
<td>1</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>39</td>
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<tr>
<td>Average</td>
<td>45</td>
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</table>

### Worldwide Governance Indicator

![Worldwide Governance Indicator Graph]

### Trends and Issues

Ecuador is trying to expand upstream activity and rejoined OPEC in 2007 after leaving it in 1992. Notwithstanding the improvements in the fiscal regime, investors’ perception of political and economic risks remains moderately high. Investments in downstream petroleum are needed to lower the dependence on imported petroleum products.
## PetroEcuador Data Table

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>One NOC and other sovereign enterprises in Ecuador.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2007</td>
<td>2</td>
<td>PetroEcuador is fully sovereign owned.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>2</td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td></td>
<td>Not listed</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2007</td>
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<td>Not listed</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2007</td>
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<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2007</td>
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<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>2</td>
<td>The BOD for PetroEcuador is called the Directorial and it is formed by the Minister of Energy and Mines, the President of PetroEcuador appointed by the President of Ecuador, and the Minister of Economics and Finance.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>2</td>
<td>No member of the BOD is external. They are all appointed by the President of Ecuador as part of the presidential administration team.</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2007</td>
<td></td>
<td>The term of service for the BOD is the same as the President of Ecuador. Only the Executive President of PetroEcuador can be re-elected after the expiration of the term.</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>2</td>
<td>The BOD is responsible for establishing the corporate policies for PetroEcuador; approval of all functional processes; establishing wage policies; approval of projects and budgets; and evaluation and supervision of the company's guidelines.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>------------------------</td>
<td>--------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2007</td>
<td>2</td>
<td>The BOD has the power to create the necessary policies and set required guidelines to attain targets. The BOD members are appointed by the president since they are part of the presidential administration team. All decisions taken by the BOD directly impact employees and processes in their activities. High decision making authority.</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>No data</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007</td>
<td>2</td>
<td>Budget planning and forecasts are predictable. The BOD administers all budget processes separate from the government.</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>2</td>
<td>Yes, it has the authority and ability to partner with other entities for specialized works and projects.</td>
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<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>2</td>
<td>Yes. Mission: “PetroEcuador is a State-owned integrated company, whose purpose is to create resources for Ecuadorian development, through efficient exploitation of hydrocarbons within an environmental protection framework; following the policies established by the National Government and under a legal framework.”</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
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<td>No data</td>
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<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>2</td>
<td>PetroEcuador follows a Transparency Policy and discloses the following information: financial reports, contracts, current debt, auditing reports, and accounts payable.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical,</td>
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<tr>
<td></td>
<td></td>
<td>other descriptors)</td>
<td></td>
<td></td>
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<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development</td>
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<tr>
<td></td>
<td></td>
<td>policies</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial</td>
<td>2007</td>
<td>2</td>
<td>The main noncommercial objective is preservation of the environment, protecting people in communities where safe infrastructure has been placed.</td>
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<tr>
<td></td>
<td></td>
<td>objectives</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2007</td>
<td>2</td>
<td>Environmental protection, social awareness, research, communication to the communities, and cultural education.</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name</td>
<td>2007</td>
<td>2</td>
<td>PetroEcuador only operates in its home country. Other international oil companies, such as Andes (China National Petroleum Corp. and China Petrochemical Corp.) and Repsol, have access to Ecuador's resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>countries)? Does it have sole access to country's resources?</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>3</td>
<td>Ecuador has three major pipelines. Oleducto Trans Ecuadorian is a 310-mile pipeline with 400,000 B/D capacity. Oleducto de Crudos Pesados is a 300-mile pipeline with 450,000 B/D capacity. Ecuador uses TransAndino pipeline (Colombia) to transport crude oil to/from Colombia.</td>
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<td></td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>Ecuador has three oil refineries with a total of 176,000 B/D combined capacity. The country is a net importer of products and is trying to increase domestic production of lighter products.</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>3</td>
<td>“There is only one large scale natural gas project in Ecuador: Amistad, located in the Gulf of Guayaquil, which produces 30 million cf/d. Ecuador's oil operations release large amounts of natural gas, but this is mostly flared due to the lack of infrastructure for capture.”</td>
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</table>

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<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
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<td>Operating Performance</td>
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<td>No data</td>
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<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales,</td>
<td></td>
<td>2008</td>
<td>3</td>
<td>All natural gas produced by Amistad flows to Noble's Machala facility,</td>
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<td></td>
<td>petrochemicals</td>
<td></td>
<td></td>
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<td>a 130 MW onshore gas-fired power plant that supplies electricity to the</td>
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<td>Guayaquil region.</td>
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<tr>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
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<td>2008</td>
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<td>Electric power generation</td>
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<td>Avg reserve replacement rate (BOE, %)</td>
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<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
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<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
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<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
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<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
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<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
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<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
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<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>Operating Performance</td>
<td>After tax return on assets</td>
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<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>35%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>-1%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>5%</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>0%</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>-1%</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>-4%</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>44%</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007, 2008</td>
<td>Ecuador's economy relies on its oil production, since the oil sector is dominant, accounting for one-half of total exports earnings and one-third of tax revenues. In addition, Ecuadorian oil production satisfies 80% of domestic energy demand. The government has modified the legal framework which enables PetroEcuador to perform at a more efficient level.</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007 2</td>
<td>Although noncommercial objectives are listed, PetroEcuador does not rank them.</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2007 2</td>
<td>Through its transparency policy, PetroEcuador displays information on social, noncommercial objectives as well as the strategies to achieve them and outcomes.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2007 2008 1 8</td>
<td>In accordance with Law 18 on public sector budget and its amendment law, oil revenue are deposited into the Treasury account - after deduction of charges and costs defined in the law which include the costs incurred by Petroecuador for the production, refining, transport and sale of oil and products. The Contraloria General del Estado is responsible for esuring compliance with the law. An Oil Stabilization Fund was created in 1998 to smooth the impact on expenditure of oil price volatility. Several other “funds” exists which use is earmarked to particular investments or sectors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2001, 2007 1,4</td>
<td>No participation in EITI; transparency initiatives are controlled by the government. Some transparency programs operate or have operated in Ecuador (e.g., National Democratic Institute).</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008 1</td>
<td>Capital investment from private companies will only be allocated to risk activities. The NOC will be responsible for capital investment for the remainder. No information is provided regarding the NOC’s strategy to raise capital for exploration and production.</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2008 1</td>
<td></td>
<td>The fiscal regime allows the development stage of the domestic resource base. Targeted goals are addressed with specific strategies and lines of action such as: renewal of oil refineries; increased support for planning, budgeting and control; modernized technology to perform processes more efficiently; greater transparency and information access; as well as consolidation of bilateral relations with other states in South America.</td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008 1</td>
<td></td>
<td>2006 law. Upstream activities are managed by PetroEcuador.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007 2</td>
<td></td>
<td>Current negotiated contracts are valid with Andes, Repsol and Agip.</td>
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<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2007 2</td>
<td></td>
<td>Join ventures with other NOCs are in place for some activities, such as pipeline transportation with the Colombian government.</td>
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<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2007 2</td>
<td></td>
<td>Vertical integration.</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2007 2</td>
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<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>2007</td>
<td>2</td>
<td>All participants are required to follow the same standards in order to file for a concession, making competition fair under the same legal framework.</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>2007</td>
<td>2</td>
<td>The NOC is not required to be a partner in midstream activities. Concessions are granted under different schemes and competition is more open.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>2008</td>
<td>3</td>
<td>There are currently successful alliances with non-NOCs: Repsol, Andes, and Agip.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>2</td>
<td>All participants are required to follow the same standards in order to file for a concession, making competition fair under the same legal framework.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>2</td>
<td>The NOC is not required to be a partner in midstream activities. Concessions are granted under different schemes and competition is more open.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
<td>3</td>
<td>There are currently successful alliances with non-NOCs: Repsol, Andes, and Agip.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007</td>
<td>2</td>
<td>PetroEcuador does not perform any international activity.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008</td>
<td>1</td>
<td>Hydrocarbon sector agency is the Ministry of Energy and Mines-National Hydrocarbons Directorate. At time of writing, budget and staffing information is not available.</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2008, 2007</td>
<td>1, 5</td>
<td>The Ministry of Energy and Mines-National Hydrocarbons Directorate is responsible for supervision of domestic energy prices as well as ensuring constitutional and legal compliance and the protection of rights.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2008</td>
<td>1</td>
<td>The Ministry of Energy and Mines-National Hydrocarbons Directorate ensures all participants in the energy sectors perform their activities under a transparent legal scheme.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2008</td>
<td>1</td>
<td>“The Ministry of Energy and Mines-National Hydrocarbons Directorate is a technical and administrative agency which inspects and audits all energy operations to ensure the social well being and protection of the environment, while promoting efficient exploitation of natural resources.”</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>2008</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2007</td>
<td>2</td>
<td>Data provided by the NOC is available and reliable. However, it is not extensive and fails to reveal important information on budget, strategies and policies, organizational structure, and</td>
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### Ecuador: PetroEcuador

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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>PetroEcuador was founded on September 26th 1989 and it is the successor to Corporacion Estatal Petrolera Ecuatoriana (CEPE) which was formed in 1972. PetroEcuador operates in 3 divisions: Petroproduccion (Exploration and Production), Petroindustrial (Refining), and Petrocomercial (Transportation and Marketing). The NOC has been subject of controversy regarding the impact of exploration and pipelines operations in the Amazon. In 1998 there was an explosion of one of the main pipelines in Esmeraldas, a port city in Northwest Ecuador. Ecuador was an OPEC member from 1973 until 1992, and rejoined in November 2007.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Ecuador is trying to expand upstream activity and rejoined OPEC in 2007 after leaving it in 1992. Notwithstanding the improvements in the fiscal regime, investors' perception of political and economic risks remains moderately high. Investments in downstream petroleum are needed to lower the dependence on imported petroleum products. satisfy internal demand.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>22.60</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>36.03%</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>12.68%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>4,269.28</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
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<td>345.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
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<td>4,328.76</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
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<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>98.63%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
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<td>100.00%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
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<td>282.64%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

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<tr>
<td>3</td>
<td>2008</td>
<td>USEIA Country Analysis Brief - Ecuador</td>
<td><a href="http://www.eia.doe.gov">www.eia.doe.gov</a></td>
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<td>5</td>
<td>2007</td>
<td>Energy Cooperation in the Western Hemisphere, Ch 16 (Foss, Wainberg, Volkov), CSIS</td>
<td><a href="http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/">http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/</a></td>
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<td>6</td>
<td>2008</td>
<td>Annual Report 2007 (sp)</td>
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<td>7</td>
<td>2007</td>
<td>Annual Report 2006 (sp)</td>
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<tr>
<td>8</td>
<td>2008</td>
<td>Ministry of Economy and Finance</td>
<td><a href="http://mef.gov.ec/portal/page?_pageid=37,1&amp;_dad=portal&amp;_schema=PORTAL">http://mef.gov.ec/portal/page?_pageid=37,1&amp;_dad=portal&amp;_schema=PORTAL</a></td>
</tr>
</tbody>
</table>
**Corporate Governance Highlights**

**Corporate Organization and Ownership**
Petroleos Mexicanos is a decentralized public entity of the Mexican government.

**Shares Controlled by Government**
The Mexican government owns 100% of PEMEX. The company is a decentralized entity of the federal government.

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
There are eleven directors of which the President of Mexico appoints 6 directors and the Petroleum Workers Union appoints 5 directors. Presidential appointees include the Secretary of Energy, Secretary of the Environment, General Coordinator of Cabinets and Special Projects of the Presidential Office, Secretary of Economy, Secretary of Communications and Secretary of Finance. No specific term. The Union selected directors are chosen from among PEMEX employees. All directors, except those appointed by the Union, serve subject to the discretion of the President of Mexico. Each subsidiary has an eight member BOD. These include the 4 Director Generals of the subsidiaries and 4 additional directors appointed by the President of Mexico.

**Independent Board Members**
None

**Is chairman also minister of energy or otherwise appointed by head of state?**
Mexican President appoints the Chairman of the BOD (Secretary of Energy) and the Director General of PEMEX.

**Operations Highlights**

**Upstream Oil**
PEMEX is the only commercial participant permitted in the oil and gas upstream sector. 74% of oil production comes from offshore and total oil production has been declining from 2004-2006. 55% of gas production come from onshore sources and has been growing but is not sufficient to meet growing demand. As a result Mexican gas imports are growing. Proved BOE reserves declined 12% from 2004 to 2006. Reserve replacement and reserve replacement costs have been very poor.

**Midstream Oil**
PEMEX is the only commercial participant permitted in the midstream oil sector. The company operates 34,865 kilometers of oil and refined product pipelines most of which are in the southern part of the country. There are no cross-border oil/product pipelines. Exports, most of which go to the US, leave Mexico via tanker from three export terminals in the south of Mexico.

**Downstream Oil**
PEMEX is the sole participant in refining operating six refineries with primary distillation capacity of 1.5 million B/D which has not grown over the period 2004-2006. The refinery utilization rate has averaged 85%. The refining segment lost $8.6 billion over the same period in part due to price subsidies. Mexico is a net importer of refined products with gasoline representing 60% of product imports. Its refineries are not configured to produce more light products like gasoline and diesel. Light products production averaged 55% of total production 2004-2006. PEMEX also owns 50% of the Deer Park refinery in Texas.

**Upstream Natural Gas**
PEMEX is the only commercial participant permitted in the oil and gas upstream sector. Non-PEMEX participants in the gas upstream operate pursuant to services contracts for fees, not equity participation in reserves or production. 55% of gas production come from onshore sources and has been growing but is not sufficient to meet growing demand. As a result Mexican gas imports are growing.
**Midstream Natural Gas**

PEMEX operates 5,700 miles of gas pipelines with 10 active import/export connections with the US. It also operates 12 gas processing plants and produces natural gas liquids and LPGs for domestic consumption. Although third parties have the right to construct, operate and ship on gas pipelines (and facilities connected with their usage) PEMEX continues to be the dominant player. (TransCanada has an 80 mile pipeline and Gas Natural has a 34 mile pipeline.) PEMEX dominance is a result of its exclusive authority over the first hand sales of natural gas as well as the transportation and storage linked with this function and as such has preferential access. The Energy Regulatory Commission (CRE) regulates the gas midstream sector. Participants cannot operate in all sectors simultaneously (transportation, storage, distribution) of the midstream gas industry.

**Downstream Natural Gas**

PEMEX is the sole participant in petrochemicals averaging 6.6 million tons per year production 2004-2006. Petrochemicals lost $3.5 billion over the same period. Gas distribution resides in the private sector (largely foreign companies), subject to regulation by the CRE, except for assets held in trust and those located within Veracruz. Mexico has one operating LNG regasification terminal (Altamira-500,000 MCF/D capacity) and one under construction (Costa Azul- 1 BCF/D capacity). Both terminals are owned by foreign company consortiums subject to regulation by the CRE. Gas supply contracts are between foreign suppliers and Mexico's state-owned electricity company, CFE. PEMEX does not participate in the LNG sector.

**Other**

None.

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>13,774</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>14,407</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>1,353</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>1,341</td>
<td></td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>467</td>
<td></td>
</tr>
</tbody>
</table>

**Financial Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>89,502</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>105,122</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>50,984</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>-1,850</td>
<td></td>
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</tbody>
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**Categorization Indicators**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>38</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>75</td>
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<tr>
<td>Commercialization</td>
<td>59</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>50</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>3</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>98</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>38</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>37</td>
</tr>
<tr>
<td>Average</td>
<td>54</td>
</tr>
</tbody>
</table>

![Graph showing categorization indicators](#)
Many industry observers have highlighted PEMEX’s sustainability risks. The company has upstream potential in the deepwater Gulf of Mexico but reportedly lacks access to international-class technology and management skills. Its oil resource base is declining and gas imports continue to grow. The Mexican government relies on PEMEX for 40% of its budget and as such the tax regime for PEMEX has been punitive. As a result, the company cannot meet its capital budget without incurring debt and debt levels are extremely high at 99% (gross debt/total capital employed) in 2006. Its access to capital is explicitly based on the support of the Mexican government. In 2008 the government enacted reforms to improve Pemex governance and access to capital and technology, but industry observers fear that the breath and pace of reform may not be sufficient to improve Pemex performance and sustainability.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is the sole NOC in the oil and gas sector.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1</td>
<td>Petroleos Mexicanos is a decentralized public entity of the Mexican government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
<td>1</td>
<td>The Mexican government owns 100% of PEMEX as the company is part of the government itself.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006</td>
<td>1</td>
<td>New York Stock Exchange</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
<td>1</td>
<td>There are eleven directors of which the President of Mexico appoints 6 directors and the Petroleum Workers Union appoints 5 directors. Presidential appointees include the Secretary of Energy, Secretary of the Environment, General Coordinator of Cabinets and Special Projects of the Presidential Office, Secretary of Economy, Secretary of Communications and Secretary of Finance. No specific term. The Union selected directors are chosen from among PEMEX employees. All directors, except those appointed by the Union, serve subject to the discretion of the President of Mexico. Each subsidiary has an eight member BOD. These include the 4 Director Generals of the subsidiaries and 4 additional directors appointed by the President of Mexico.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>1</td>
<td>Mexican President appoints the Chairman of the BOD (Secretary of Energy) and the Director General of PEMEX.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006</td>
<td>1</td>
<td>There are no independent board members.</td>
</tr>
</tbody>
</table>
## Corporate Governance

### Board of Directors (BOD)

**Term of service (years, with re-appointment). Comment if they can be readily removed.**

<table>
<thead>
<tr>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1</td>
<td>See BOD Structure above.</td>
</tr>
</tbody>
</table>

### Role of BOD

**Description of role and policy statements**

<table>
<thead>
<tr>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006, 2008</td>
<td>1, 6, 8</td>
<td>The role of the BOD is unclear. There is no audit committee of the BOD so the entire board performs that role. The company is voluntarily considering the establishment of an independent audit committee as part of an effort to implement best practices in corporate governance. In 2006 PEMEX remediated a material weakness in its internal control over financial reporting identified in 2005. President Calderon's proposed legislation regarding PEMEX submitted to the Mexican Congress in April 2008 envisions adding four outside experts to PEMEX's board to &quot;make the company's workings more transparent and to stem corruption.&quot; In a presentation in May 2008, the PEMEX Director General indicated that corporate governance needed improvement.</td>
</tr>
</tbody>
</table>

### Recruitment/Replacement of Key Executives

**General process for recruitment, replacement of key execs and senior managers**

<table>
<thead>
<tr>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1</td>
<td>Presidential prerogative. See BOD Structure above.</td>
</tr>
</tbody>
</table>

### Decision Making Processes

**Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.**

<table>
<thead>
<tr>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1</td>
<td>PEMEX has a predictable, formal annual capital budgeting process. The Ministry of Finance and Public Credit approves the annual budget and financing program. However, their budget is part of the national budget (and competes with other claims on public funds) and must be approved annually by Congress.</td>
</tr>
</tbody>
</table>

### Decision Making Processes, Budget Autonomy

**Based on available information, is NOC budget process predictable and separate from government**

<table>
<thead>
<tr>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1</td>
<td>See above.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
</tr>
</tbody>
</table>
### Operating Performance

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006</td>
<td>1, 2</td>
<td>PEMEX is the sole participant in refining operating six refineries with primary distillation capacity of 1.5 million B/D which has not grown over the period 2004-2006. The refinery utilization rate has averaged 85%. The refining segment lost $8.6 billion over the same period in part due to price subsidies. Mexico is a net importer of refined products with gasoline representing 60% of product imports. Its refineries are not configured to produce more light products like gasoline and diesel. Light products production averaged 55% of total production 2004-2006. PEMEX also owns 50% of the Deer Park refinery in Texas.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is the only commercial participant permitted in the oil and gas upstream sector. Non-PEMEX participants in the gas upstream operate pursuant to services contracts for fees, not equity participation in reserves or production. 55% of gas production come from onshore sources and has been growing but is not sufficient to meet growing demand. As a result Mexican gas imports are growing.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
<td>1</td>
<td>PEMEX operates 5,700 miles of gas pipelines with 10 active import/export connections with the US. It also operates 12 gas processing plants and produces natural gas liquids and LPGs for domestic consumption. Although third parties have the right to construct, operate and ship on gas pipelines (and facilities connected with their usage) PEMEX continues to be the dominant player. (TransCanada has an 80 mile pipeline and Gas Natural has a 34 mile pipeline.) PEMEX dominance is a result of its exclusive authority over the first hand sales of natural gas as well as the transportation and storage linked with this function and as such has preferential access. The Energy Regulatory Commission (CRE) regulates the gas midstream sector. Participants cannot operate in all sectors simultaneously (transportation, storage, distribution) of the midstream gas industry.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>----------</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is the sole participant in basic petrochemicals averaging 6.6 million tons per year production 2004-2006. Petrochemicals lost $3.5 billion over the same period. Gas distribution resides in the private sector (largely foreign companies), subject to regulation by the CRE, except for assets held in trust and those located within Veracruz. Mexico has one operating LNG regasification terminal (Altamira-500,000 MCF/D capacity) and one under construction (Costa Azul- 1 BCF/D capacity). Both terminals are owned by foreign company consortiums subject to regulation by the CRE. Gas supply contracts are between foreign suppliers and Mexico's state-owned electricity company, CFE. PEMEX does not participate in the LNG sector.</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
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<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>29%</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$18.58</td>
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<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>-12%</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>91%</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$5.44</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>$4.12</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------------------------------------</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>$33.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>91%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>84%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>-3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($/barrel)</td>
<td>$ (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>-240%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>-7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>57%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>-2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>101%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>99%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>-2%</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>-2%</td>
</tr>
<tr>
<td><strong>Value Creation Metrics</strong></td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>62%</td>
</tr>
<tr>
<td><strong>Other Factors</strong></td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2006</td>
<td>1</td>
<td>Although not specifically related to national development objectives, Mexico has three major hydrocarbon laws: (1) The Regulatory Law to Article 27 of the Political Constitution of the United Mexican States Concerning Petroleum Affairs; (2) The Organic Law of PEMEX and Subsidiary Entities and (3) The 1995 Regulatory Law which opened natural gas transportation, storage and distribution to non-NOC entities.</td>
</tr>
<tr>
<td><strong>Other Factors</strong></td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2006</td>
<td>1, 6, 8</td>
<td>Commercial functions are separated from policy and regulatory functions in the hydrocarbon sector: they reside in PEMEX, non-NOC service contractors in upstream natural gas and non-NOC participants in mid and downstream natural gas authorized by the 1995 Regulatory Law. Aside from the independent regulator for the mid and downstream natural gas sectors, the Energy Regulatory Commission (CRE), policy and regulatory functions reside in multiple ministries and the office of the President.</td>
</tr>
<tr>
<td><strong>Other Factors</strong></td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Maintain oil production at 3.1 MMB/D until 2012; 100% reserve replacement ratio by 2012/2013; achieve R/P ratio of 10 years; maintain gas production increases above demand growth; reduce gasoline imports; enact crucial operational upgrades in refining and petrochemicals and reduce investment leverage. In order to meet these goals PEMEX needs: greater flexibility, enhanced execution capacity and sufficient resources.</td>
</tr>
<tr>
<td><strong>Other Factors</strong></td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2006</td>
<td>1</td>
<td>None disclosed.</td>
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<tr>
<td>Indicator Category</td>
<td>Category Description</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>A stabilization fund - Fondo de Estabilización de los Ingresos Petroleros (FEIP) – was created in 2000 with the intention of smoothing the impact on public expenditure of changes in the oil prices and other factors, but specific data on its assets and flows are not publicly available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>7</td>
<td>PEMEX supports the EITI initiative.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2006, 2007</td>
<td>1, 2, 6, 9</td>
<td>There has been significant underinvestment in all sectors of the Mexican hydrocarbon industry. Non-NOC investment has been extremely limited in permitted sectors due to contract structures and PEMEX dominance. Over the three years ended 2006 PEMEX funded only 60% of its capital expenditures from operating cash flow, incurring a gross debt/total capital employed ration of 99%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2006</td>
<td>1</td>
<td>The hydrocarbon fiscal regime (taxes, dividends) with respect to PEMEX is punitive with a three year average effective tax rate of 101%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006</td>
<td>1</td>
<td>None except for limited service contractor participation in upstream natural gas production.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>10</td>
<td>See above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>Fee-based service contracts in upstream natural gas production. Joint venture in Texas refinery.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is a vertically integrated company.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>No except for one refinery in Texas. PEMEX formerly operated MexPetro which sought positions in international ventures. The Mexican Congress forced PEMEX to shut down MexPetro some years ago. PEMEX International (PMI) engages in international trading.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2006</td>
<td>1</td>
<td>No except for fee-based service contractors to PEMEX in upstream gas production.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006, 2007</td>
<td>1</td>
<td>See above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is the sole participant in oil midstream and downstream. In gas midstream, PEMEX dominates although third party participants permitted. In gas distribution, non-NOC participants dominate. PEMEX is the sole participant in petrochemicals.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td>2006</td>
<td>1</td>
<td>See above.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2006</td>
<td>1</td>
<td>Limited to service contracts and one refining joint venture.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006</td>
<td>1</td>
<td>The Deer Park refinery in Texas was successfully expanded.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2006</td>
<td>1</td>
<td>None.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2003, 2007</td>
<td>1, 9</td>
<td>There is only one independent regulator, the Energy Regulatory Commission (CRE) in the midstream and downstream gas sectors; regulation resides in ministries and the President's office for other sectors. The CRE does not have the authority to establish tariffs and end-use prices of natural gas. It &quot;participates&quot; in tariff setting with the Ministry of Finance.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2006</td>
<td>1</td>
<td>PEMEX is not compelled to adopt competitive market practices. In addition, oil products and natural gas price subsidies and controls are not characteristic of a competitive market.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2006</td>
<td>10</td>
<td>CRE data provision has improved and further improvement efforts are continuing. Other data is provided by relevant ministries and is generally comprehensive and good quality.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
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<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. Brief description of programs and support</td>
<td>2006</td>
<td>3</td>
<td>Disclosure on company website.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. Brief description of subsidy program, approach, cost</td>
<td>2006</td>
<td>1</td>
<td>About $2.3 billion in 2006.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2006</td>
<td></td>
<td>$752.47</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>2006</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>2006</td>
<td></td>
<td>$640.66</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2006</td>
<td>1, 10</td>
<td>Good with respect to NOC SEC Form 20Fs and hydrocarbon sector data provided by the Mexican government.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2006</td>
<td>1</td>
<td>The Mexican Congress established PEMEX in 1938 and it has remained a decentralized entity of the Mexican government. In April 2008 President Calderon proposed legislation which would provide limited reforms to PEMEX and its commercial frameworks. The legislation is pending in Congress and is politically controversial in the country.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2006</td>
<td></td>
<td>Many industry observers have highlighted PEMEX’s sustainability risks. The company has upstream potential in the deepwater Gulf of Mexico but reportedly lacks access to international-class technology and management skills. Its oil resource base is declining and gas imports continue to grow. The Mexican government relies on PEMEX for 40% of its budget and as such the tax regime for PEMEX has been punitive. As a result, the company cannot meet its capital budget without incurring debt and debt levels are extremely high at 99% (gross debt/total capital employed) in 2006. Its access to capital is explicitly based on the support of the Mexican government. In 2008 the government enacted reforms to improve Pemex governance and access to capital and</td>
</tr>
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</table>
technology, but industry observers fear that the breath and pace of reform may not be sufficient to improve Pemex performance and sustainability.

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<tr>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>139,702</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>14,687</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>9.31</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>6.57%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>2.13%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>12,186.50</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>13,014.53</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>14,430.38</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited through PEMEX 2005.</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>105%</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>91%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>84.45%</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.98%</td>
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</table>
## Mexico: Petroleos Mexicanos (PEMEX)

<table>
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<tr>
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<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>145.18%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>No</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<td>No</td>
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## Sources of Information

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>3</td>
<td>2006</td>
<td>PEMEX. See social responsibility.</td>
<td><a href="http://www.pemex.com">www.pemex.com</a></td>
</tr>
<tr>
<td>4</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
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<tr>
<td>7</td>
<td>2008</td>
<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
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</tbody>
</table>
Peru: PetroPeru

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
PetroPeru was incorporated in 1969. The laws that govern Petroperu's activities have been modified in subsequent years. The last modification came about in 1999 with the creation of the "Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado" (FONAFE) which governs and coordinates the activities of state-owned companies. In 2006, PetroPeru was granted additional autonomy by removing it from the supervision of the FONAFE. It engages in downstream and midstream activities.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
No data

Board of Directors Structure
The BOD is formed by the President and 4 directors.

Independent Board Members
No

Is chairman also minister of energy or otherwise appointed by head of state?
The BOD and the chair are named by the "Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado". Since 2006, additional autonomy has been given to the company with the intent of leaving it out of the supervision of the FONAFE.

Operations Highlights

Upstream Oil
PetroPeru has been granted opportunities to engage in E&P activities in Peru. No ventures in this regard were found to date. E&P activities in Peru are subject to competition and have multiple companies actively participating.

Midstream Oil
PetroPeru owns and operates the sole pipelines that connect the northern producing areas with cabotage and export ports. These have been in operation for 30 years and will need to be expanded in capacity as production in the region is expected to increase beyond current pipeline capacity.

Downstream Oil
PetroPeru meets approximately 50% of the country's demand for petroleum products. Repsol is the largest supplier (20-35%) while the rest is supplied by several smaller participants. PetroPeru sells 70,000 B/D domestically and exports about 6,000 B/D of products. PetroPeru also imports about 11,000 B/D of crude and products.

Upstream Natural Gas
The Camisea project is the country's largest natural gas venture. In general, PetroPeru does not participate in the natural gas value chain.

Midstream Natural Gas
In general, PetroPeru does not participate in the natural gas value chain.

Downstream Natural Gas
In general, PetroPeru does not participate in the natural gas value chain.

Other
Though granted additional autonomy, PetroPeru does not participate in other activities other than its core.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
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</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues</td>
<td>2,581</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
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<tr>
<td>Consolidated Average Total Assets</td>
<td>854</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average EBIT</td>
<td>198</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Net Income</td>
<td>42</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
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Categorization Indicators

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>59</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>81</td>
</tr>
<tr>
<td>Commercialization</td>
<td>17</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>13</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>1</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>99</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>99</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>45</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

The development of the Camisea project will have important effects on Peru’s economy and strategic position. The project is designed to exploit a huge gas field in the Amazonian region that could save the country some $4 billion in energy costs and earn it several billion dollars more in the form of exports. Achieving this goal would add a significant new revenue stream to the country’s hydrocarbon sector and national budget, and will help addressing rising internal demand for natural gas for power generation. Concerns have been voiced by some civil society organizations with respect to the project’s impact on the environment and local communities.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
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<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>PetroPeru is the only NOC in Peru.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1</td>
<td>PetroPeru was incorporated in 1969. The laws that govern PetroPeru's activities have been modified in subsequent years. The last modification came about in 1999 with the creation of the &quot;Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado&quot; which governs and coordinates the activities of state owned companies. In 2006, PetroPeru was granted additional autonomy by removing it from the supervision of the FONAFE. It engages in downstream and midstream activities.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>1</td>
<td>100 %</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>1</td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>1</td>
<td>The BOD is formed by the President and 4 directors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2004</td>
<td>4</td>
<td>The BOD and the chair are named by the &quot;Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado&quot;. Since 2006, additional autonomy has been given to the company with the intent of leaving it out of the supervision of the FONAFE.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>1</td>
<td>No</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2004</td>
<td>4</td>
<td>The BOD develops the strategic plan for PetroPeru and approves the budget as well as the organization. The BOD is responsible for the annual reporting to shareholders.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>Yes. The BOD defines the strategies and budgets for specific goals of the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>PetroPeru has a specific board-approved document which defines procedures and strategies for hiring of executives and the BOD.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>PetroPeru has sufficient budget authority for operations. The company has substantial autonomy within the guidelines issued by the Ministry of Energy. PetroPeru's budget autonomy was enhanced by recent amendments to the regulatory framework.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>PetroPeru’s budget is part of the national budget and is approved as part of the country's budget law.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>The NOC has the authority to partner with other entities although there is not much evidence of this having taken place.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>The mission of PetroPeru is to satisfy the energy needs of the Peruvian domestic market at competitive prices, generating and promoting competition in the marketplace.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008</td>
<td>1</td>
<td>The company adopted a directive that seeks to increase transparency through the availability of information on the company's operations. Information is readily available.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008</td>
<td>1</td>
<td>Salary scales and promotion policies are publicly available as part of PetroPeru's transparency directive. The information includes pay raises for all types of personnel and their pay scales.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>PetroPeru has been granted opportunities to engage in E&amp;P activities in Peru. No ventures in this regard were found to date. E&amp;P activities in Peru are subject to competition and have multiple companies actively participating.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>PetroPeru owns and operates the sole pipelines that connect the northern producing areas with cabotage and export ports. These have been in operation for 30 years and will need to be expanded in capacity as production in the region is expected to increase beyond current pipeline capacity.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>PetroPeru meets approximately 50% of the country's demand for petroleum products. Repsol is the largest supplier (20-35%) while the rest is supplied by several smaller participants. PetroPeru sells 70,000 B/D domestically and exports about 6,000 B/D of products. Petroperu also imports about 11,000 B/D of crude and products.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>PetroPeru does not participate in the natural gas value chain.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>PetroPeru does not participate in the natural gas value chain.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>PetroPeru does not participate in the natural gas value chain.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>Though granted additional autonomy, PetroPeru does not participate in other activities other than its core business.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
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<td>Indicator Category</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td>70%</td>
<td>70%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>8%</td>
<td>8%</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>2%</td>
<td>2%</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>70%</td>
<td>70%</td>
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<td>Indicator Description</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>1%</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td></td>
<td>The hydrocarbon sector is seen as a tool to help foster national development, both through increased energy supply locally and through increased revenues from exports.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>The separation of roles between policy (Ministry of Energy), regulation (Perupetro, Osinerg), and commercial activities (Petroperu) is defined by law.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
<td>PetroPeru has the clear objective of meeting domestic demand for energy in general and petroleum products specifically.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>PetroPeru does not engage in considerable non-commercial activities other than a series of cultural and educational activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>1, 12</td>
<td>In accordance with the law petroleum revenues, included royalties collected by PeruPetro on behalf of the state, are shared among the central government and the producing regions and localities (Ley Complementaria del Canon y Sobrecanon para Petróleo y Gas en Piura y Tumbes, Ley Nº 27763-2002, as amended by Decreto de Urgencia Nº 002-2003). Perupetro provides regular disclose of royalty payments on its website. Vigila Peru, also publishes detailed analysis of oil revenue and their distribution among level of government.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Current, 2007</td>
<td>5, 6, 7, 8</td>
<td>Peru was admitted as an EITI candidate country in September 2007. An action plan has been prepared and a working committee formed to meet the 2010 validation target. Various transparency organizations operate or have operated in Peru, such as Transparency International (Proetica); Revenue Watch; National Democratic Institute (NDI), and Vigila Peru.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>Current</td>
<td>11</td>
<td>New investments in exploration activity, field development and production are commonplace.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>Current</td>
<td></td>
<td>The fiscal regime appears to be attractive for upstream activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Investment is taking place both in mature and new areas, which suggests that the current fiscal regime is considered adequate by investors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>Current</td>
<td></td>
<td>Yes. Considerable private investment is taking place in the upstream.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>Current</td>
<td></td>
<td>Recent bidding rounds for new exploration areas appear to have attracted considerable attention.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>EPC contracts have been used by PetroPeru for specific infrastructure developments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>PetroPeru is mostly dedicated to the midstream and downstream aspects of the business. PetroPeru is the owner of the northern pipeline, which it manages like a regulated open access pipeline.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No data</td>
<td></td>
<td>No</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Upstream competition is open and there is no legal requirement to include PetroPeru as a partner.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td></td>
<td></td>
<td>No real competition in the midstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>The company is free to contract and partner to pursue its mission. No reporting of such ventures is available.</td>
</tr>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>No</td>
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<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>Non-commercial obligations appear to be only a minor portion of overall operations.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007, Current 10, 11</td>
<td>Perupetro was created to promote investment in hydrocarbons exploration and production, and to negotiate, enter into and supervise hydrocarbon contracts on behalf of the state. Other regulatory functions are carried out by the Ministry of Energy and Mines.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$499.95</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$1,510.50</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>A limited amount of information is made publicly available.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>10</td>
<td>PetroPeru was created in response to the need to separate upstream from downstream activities as mandated in the 1993 hydrocarbon law. PetroPeru was to focus on the downstream, while Perupetro was created to promote investment in hydrocarbons exploration and production, to negotiate, enter into and supervise hydrocarbon contracts on behalf of the state, and to market the hydrocarbons obtained from areas under contract.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>The development of the Camisea project will have important effects on Peru’s economy and strategic position. The project is designed to exploit a huge gas field in the Amazonian region that could save the country some $4 billion in energy costs and earn it several billion dollars more in the form of exports. Achieving this goal would add a significant new revenue stream to the country's hydrocarbon sector and national budget, and will help addressing rising internal demand for natural gas for power generation. Concerns have been voiced by some civil society organizations with respect to the project’s impact on the environment and local communities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>1,709</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>62.16</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-2.63%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-0.75%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>1,097.29</td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>12,536.71</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>3,258.79</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>33.67%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.97%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>75.62%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
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<td>Source #</td>
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<tr>
<td>1</td>
<td>2008</td>
<td>Petroperu web site</td>
<td><a href="http://www.petroperu.com.pe">http://www.petroperu.com.pe</a></td>
<td></td>
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<td>4</td>
<td>2008</td>
<td>USEIA Peru Country Analysis Brief</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Peru/Background.html">http://www.eia.doe.gov/emeu/cabs/Peru/Background.html</a></td>
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<td>Current</td>
<td>Extractive Industries Transparency Initiative</td>
<td><a href="http://eitransparency.org/Peru">http://eitransparency.org/Peru</a></td>
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<td>EITI Peru</td>
<td><a href="http://www.minem.gob.pe/eiti/default.asp">http://www.minem.gob.pe/eiti/default.asp</a></td>
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<td>7</td>
<td>Current</td>
<td>Revenue Watch Peru</td>
<td><a href="http://www.revenuewatch.org/our-work/countries/peru.php">http://www.revenuewatch.org/our-work/countries/peru.php</a></td>
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<td>9</td>
<td>Current</td>
<td>Transparency International - Proetica (Peru)</td>
<td><a href="http://www.proetica.org.pe/Index.html">http://www.proetica.org.pe/Index.html</a></td>
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<td>10</td>
<td>2007</td>
<td>Energy Cooperation in the Western Hemisphere, Ch 16 (Foss, Wainberg, Volkov), CSIS</td>
<td><a href="http://www.csis.org/component/option,com_csis_pubs/task_view/id,3679/type,2/">http://www.csis.org/component/option,com_csis_pubs/task_view/id,3679/type,2/</a></td>
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</tbody>
</table>
Venezuela: Petroleos de Venezuela S.A. (PDVSA)

Summary Report

**Corporate Governance Highlights**

**Corporate Organization and Ownership**
All shares are owned by the Venezuelan people as stated in the constitution. The Minister of Energy acts as the agent for the Venezuelan people and represents them in the shareholders meeting.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
Company is not listed.

**Board of Directors Structure**
The Board of Directors is chaired by the president of PDVSA. In addition there are two vice-presidents, 4 internal directors and 3 external directors, all of whom are appointed by the President of Venezuela.

**Independent Board Members**
Though in name there are three external directors, they are appointed using the same criteria for appointment of internal directors.

Is chairman also minister of energy or otherwise appointed by head of state?
Yes

**Operations Highlights**

**Upstream Oil**
PDVSA operates E&P related activities solely in Venezuela. It is required by law to have a majority interest in any hydrocarbon producing activity in Venezuela.

**Midstream Oil**
Domestically PDVSA operates all pipelines, storage and cabotage operations. It also has interest in storage facilities and pipelines abroad. In recent years, as part of its program to divest assets in the US or that serve the US, it has moved to sell its interest in several pipelines in the US (Colonial) and is moving to sell its terminal and storage facilities in the Bahamas.

**Downstream Oil**
As a consequence of a program to invest downstream in the 1980s, PDVSA created CITGO and other international subsidiaries. The current focus is one of divestiture of assets in the US (or rationalization) and to focus on developing assets in regional markets more in line with the new strategic focus of the company. In addition, it has entered into small joint ventures in countries in the Caribbean and South America for retail sales of petroleum products tied to the PetroCaribe and PetroAmerica initiatives. PDVSA supplies the domestic market with about 1.2 MMB/D of refining capacity.

**Upstream Natural Gas**
PDVSA operates E&P related activities solely in Venezuela. There was no legal requirement for PDVSA to have a majority interest in any natural gas producing activity in Venezuela. Considerable exploration activity is taking place offshore Venezuela led by IOCs.

**Midstream Natural Gas**
Domestically PDVSA operates all pipelines and natural gas related activities (compression had been partially outsourced but those contracts were eliminated). There are no natural gas storage facilities in Venezuela. Opportunities for LNG are available in the future once the market of new natural gas discoveries is determined. LNG is not the main outlet for natural gas. Several natural gas pipeline projects have been considered, but a decision has yet to be made.

**Downstream Natural Gas**
Natural gas is distributed directly within the main cities while LPG and propane is distributed to those not served directly via natural gas distribution systems. A petrochemical affiliate that provides a limited number of products also exists.

**Other**
With the expropriation/nationalization of power generation assets by the government, these have now become part of the patrimony of PDVSA (Electricidad de Caracas). In addition, PDVSA has indicated its intention to provide electricity to various locations that are currently undersupplied. Although some of these projects have been on the chart for almost a decade; implementation has been very slow.
Operations Performance Highlights (2004-2007; not all years or data reported)

Upstream: Average Proved Oil Reserves (MM Barrels) 17,343
Upstream: Average Proved Gas Reserves (BCF) 107,006
Upstream: Average Annual Oil Production (MM Barrels) 1,054
Upstream: Average Annual Natural Gas Production (BCF) 2,519
Downstream: Average Annual Refinery Production (MM Barrels) 1,041

Financial Performance Highlights (2004-2007; not all years or data reported)

Consolidated Average Total Revenues ($Millions) 85,163
Consolidated Average Total Assets ($Millions) 80,103
Consolidated Average EBIT ($Millions) 35,579
Consolidated Average Net Income ($Millions) 5,904

Categorization Indicators

<table>
<thead>
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<th>Categories</th>
<th>Scores</th>
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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
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<td>Commercialization</td>
<td>67</td>
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<tr>
<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
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<td>Local Contribution</td>
<td>55</td>
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<td>Sector and Trade Openness</td>
<td>36</td>
</tr>
<tr>
<td>Average</td>
<td>51</td>
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</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

While high oil prices have led to historically high revenues in recent years, Venezuela's production and export volumes have declined. According to industry experts PDVSA would need to make substantial investments to maintain production levels at existing fields, as many of these fields suffer annual decline rates of at least 25 percent. Harsher fiscal regimes and the broad mission of PDVSA may hinder its ability to meet this goal. The recent strengthening of alliances with other petroleum producers in Europe, Asia and the Middle East may help PDVSA to address this problem.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2004</td>
<td>2</td>
<td>PDVSA is a holding company of a large number of affiliates. The affiliates tackle different aspects of the oil and gas business as well as other government directed programs such as PDVSA Agricola which targets food production. PDVSA was formed by the Venezuelan government in 1975 pursuant to the Organic Law that reserves for the state the industry and trade of hydrocarbons (the “Nationalization Law”). PDVSA’s operations are supervised by Venezuela’s Ministry of Energy and Petroleum. The Minister now also serves as the President of PDVSA.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2004</td>
<td>2</td>
<td>All shares are owned by the Venezuelan people as stated in the constitution. The Minister of Energy acts as the agent for the Venezuelan people and represents them in the shareholders meeting.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1</td>
<td>100 %</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>Company is not listed.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2007</td>
<td>1</td>
<td>After 2004, all bonds that required reporting to the SEC were repurchased by PDVSA. In addition, most of the project financing debt tied to the four heavy oil joint ventures in Venezuela was repurchased by PDVSA and the remaining partners according to the new levels of participation in the Joint Ventures. Debt that was not repaid has now become part of the debt of PDVSA. Considerable new debt was issued in 2007: $7.5 billion with maturities of 2017, 2027 and 2037. The debt was sold in Venezuela in order to reduce liquidity following instructions from the Ministry of Finance. $3.5 billion was provided by JBIC payable in 15 years. BNP Paribas led a consortium that provided $1.124 Billion in a new short term line of credit. PDVSA's affiliate CITGO also entered into a short term line of credit for $1 billion led by BNP Paribas and UBS. Most debt covenants do not impose restrictions on PDVSA dividend issuance.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Company files form 20-F with SEC?</td>
<td>2007</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1</td>
<td>The Board of Directors is led by the President of PDVSA. In addition there are two vice-presidents, 4 internal directors and 3 external directors all appointed by the President of Venezuela.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
<td>There are three external directors. They are appointed using the same criteria for appointment of internal directors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2007</td>
<td>1</td>
<td>The members of the Board of Directors are initially appointed for a period of 2 years through a Presidential Decree. They can be removed at any moment and can be reappointed indefinitely until removed by the President of Venezuela.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>1</td>
<td>The Board of Directors is responsible for calling the annual and special meetings of shareholders; preparing and presenting the operational results of the company at the end of the fiscal year; and formulating and executing the operational, economic, financial and social strategies of the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2007</td>
<td>1</td>
<td>Yes, the Board of Directors does have decision making authority. For example, it can assign budgets to different divisions of the corporation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2007</td>
<td>1</td>
<td>Clearly stated policies of support for the “socialist revolution” for all key executives and managers. Reported dismissals of midlevel personnel for political reasons.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2007</td>
<td>1</td>
<td>The company generates the budget proposal which is first approved at the shareholder meeting. Since the Minister of Energy acts as the sole agent for all shareholders, the overall budget is aligned with government objectives. Special dividends are routinely declared in order to meet cash flow demands of the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007</td>
<td>1</td>
<td>It is predictable but it is influenced by the government. In addition, the President of the company is a member of the cabinet. The Ministry of Energy and Petroleum establishes general policies and approves production levels, capital expenditures and operating budgets annually, while the board of directors is responsible for implementing the policies established by the government of Venezuela.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>1</td>
<td>The company may propose to partner with other entities but this must be approved by the national assembly.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>1</td>
<td>PDVSA is responsible, in Venezuela, for the development of the hydrocarbon industry; it also plans, coordinates, supervises and controls activities related to the exploration, exploitation, manufacture, refining, transportation and sales of hydrocarbons and products both in Venezuela and abroad.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2007</td>
<td>1</td>
<td>The company generates the budget proposal which is first approved at the shareholder meeting. Since the Minister of Energy acts as the sole agent for all shareholders overall budget is aligned with government objectives. Special dividends are routinely declared to meet cash flow demands of the government. Investment budget is assigned during this budget generation process. It is not preestablished.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>1</td>
<td>Since 2005, audited data is no longer submitted to the SEC. Rather, annual reports are now issued by the company and audited by KPMG without the need to prepare the SEC form 20-F. Some of the affiliates/JVs have independent auditors such as PriceWaterhouseCoopers, Ernst &amp; Young, and Deloitte.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2007</td>
<td>1</td>
<td>Total employee base has grown consistently in the past 3 years reaching almost 80,000. Only total employees are reported.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>1</td>
<td>Agreements were signed with Venezuelan institutions for higher education to provide 2 year undergraduate degrees for workers. English programs are contracted with Universities in Jamaica and Barbados.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2007</td>
<td>1</td>
<td>Reporting non-commercial activities has become an important priority for the company as reflected in its annual report.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2007</td>
<td>1</td>
<td>Non-commercial obligations are estimated in the most recent annual report to be in the order of $14 billion annually.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2007</td>
<td>1</td>
<td>PDVSA operates E&amp;P related activities solely in Venezuela. It is required by law to have a majority of interest in any hydrocarbon producing activity in Venezuela.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2007</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>1</td>
<td>Domestically PDVSA operates all pipelines, storage and cabotage operations. It also has interest in...</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>As a consequence of a program to invest downstream in the 1980s, PDVSA owns CITGO and many other downstream assets abroad. The current focus is the divestiture of assets in the US (or rationalization) and the development of assets in regional markets. In addition, it has entered into small joint ventures in countries in the Caribbean and South America for retail sales of petroleum products tied to the PetroCaribe and PetroAmerica initiatives. PDVSA supplies the domestic market with about 1.2 MMB/D of refining capacity.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>1</td>
<td>PDVSA operates E&amp;P related activities solely in Venezuela. It was not required by law to have a majority interest in any natural gas producing activity in Venezuela. Considerable exploration activity is taking place offshore Venezuela led by IOCs.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007</td>
<td>1</td>
<td>Domestically PDVSA operates all pipelines and natural gas related activities (compression had been partially outsourced but those contracts were eliminated). There are no natural gas storage facilities in Venezuela. Opportunities for LNG are available in the future once the market of new natural gas discoveries is determined. LNG is not the main outlet for natural gas. To the contrary, the government is pushing for natural gas pipelines as outlets for natural gas, but none have been developed.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>Natural gas is distributed directly within the main cities while LPG and propane is distributed to those not served directly via natural gas distribution systems. A petrochemical affiliate that provides a limited number of products has been in existence for decades.</td>
</tr>
</tbody>
</table>
### Value Creation Metrics

<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
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<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2007</td>
<td>1</td>
<td>With the expropriation / nationalization of power generation assets by the government, these have now become part of the patrimony of PDVSA (Electricidad de Caracas). In addition, PDVSA has indicated its intention to provide electricity to areas that are currently undersupplied. These projects have been in the making for more than a decade, but the pace of implementation has been very slow.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>59%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td></td>
<td>92%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>84%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>8</td>
<td>“The new PDVSA is a national Venezuelan state-owned corporation, committed to serving the interests of the Venezuelan public; constitutionally, the rightful owner of the countries oil reserves. This company has developed ever closer links with the Venezuelan State that will allow a coherent</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>Hydrocarbon laws address roles of Ministry of Energy and Petroleum (MEP) and PDVSA. Institutional arrangements are designed to ensure a strict link between the two institutions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008 8 Objectives are clearly stated but do not appear to be ranked.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2008 8 “PDVSA promotes Fondespa (The Fund for Social and Economic Development within the Country), which has the task of promoting social development through a transparent and fair distribution of oil revenues.” “PDVSA is 100% committed to the eradication of both rural and urban poverty. The company promotes an extensive network of endogenous development projects throughout the country. It also actively discourages every kind of discrimination and is dedicated to supporting minority groups within Venezuela, through a wide range of different programs.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>Nearly 15% of the revenue is spent by PDVSA on social programs, which are not part of the state budget (not subject to Parliamentary oversight). In 1999 Venezuela established the Macroeconomic Stabilization Fund (FIEM). FIEM receives revenues above a reference price -based on the average oil price of the last five years, and transfers revenues to the Treasury when the oil price falls below the reference price. FIEM</td>
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</table>
was created by the authority of the Presidency of the Republic. The Board of the Central Bank of Venezuela (BCV) governs FIEM and ensures compliance, approves annual operating budgets, approves annual fund reports, issues internal regulations, approves expenditures, establishes policies, and ensures that the fund functions as they desire. Approved annual fund reports are submitted to congress. The leadership of the BCV is appointed by the President. The legislative has limited involvement with any decision-making and oversight with respect to FIEM. Expenditure from FIEM can be authorized by presidential decree. The operating rules of the FIEM have been changed several times since its creation and suspended its operation for an extended period. Due to its institutional arrangements compared to other sovereign wealth funds, the FIEM is considered to have especially low levels of effective governance.

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<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2007, Current</td>
<td>4,5</td>
<td>Venezuela is not a candidate country for EITI. Transparency International and National Democratic Institute operate in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>The fiscal regime limits investment in certain high cost areas or areas that require large investments with long payout periods. The imposition of new windfall taxes is creating additional limitations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>PDVSA debt is rated BB-. However, this does not seem to be tied to the fiscal regime since it has not changed much even as the fiscal regime has changed in recent years.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>The vast amount of the resource base is extra-heavy crude or offshore natural gas. In both cases, industry observers believe that the current fiscal regime does not adequately take into account their complexity or the very large investments that they require. Under the current fiscal regime, no new projects requiring significant investments appear to have been proposed by PDVSA or third</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>PDVSA</td>
<td>Current law allows for joint ventures in which the national oil company has to have at least 60% ownership and control of operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>PDVSA</td>
<td>Most joint ventures are negotiated contracts/agreements that are approved by the National Assembly.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>PDVSA</td>
<td>Current law allows for joint ventures in which the national oil company has to have at least 60% ownership and control of operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>PDVSA</td>
<td>Large investments have not taken place in recent years. Small projects have been undertaken and have mostly been managed by PDVSA.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>PDVSA</td>
<td>Complete integration in the oil sector. Natural gas exports and LNG operations are nonexistent at present.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>PDVSA</td>
<td>Yes. Investments are minor but strategic. Partnerships with other regional National Oil Companies in which it assumes a minority role. Examples are upstream activities in partnership with YPFB.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>PDVSA</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>PDVSA</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>PDVSA</td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>PDVSA</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>PDVSA</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>PDVSA</td>
<td>58%</td>
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<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td></td>
<td>Yes.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>Non-NOC participants do not compete against PDVSA. Deals are negotiated with PDVSA which has to be the majority owner of any joint venture.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>In the midstream most if not all assets are owned by PDVSA.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007 6</td>
<td></td>
<td>Old ventures exist between PDVSA and privately held companies. All new ventures are slated to be with foreign NOCs. To date only minor investments have taken place.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>The NOC owns downstream assets abroad that meet international standards of quality and operation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>Expenses associated with non-core commercial activities are reported to be $14.9 billion while a total of $14.1 billion were dedicated to government directed programs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007 6</td>
<td></td>
<td>There is no independent regulatory body for the oil sector. There was an attempt to develop a regulator for the natural gas sector which ultimately was incorporated into the MEP.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>1-50 and 74</td>
<td></td>
<td>Market price for oil products sold in the domestic market is on the order of $7.29 per barrel while the average price of a barrel of oil resulted in a price of $64.7. The average production cost is reported to be $4.93.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No separate regulator.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Prices for petroleum products are centrally regulated. Subsidy estimate is based on the opportunity cost of exporting crude to markets minus average domestic price.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2008 8</td>
<td>The company specifically manages and operates programs directed by the government that are called social in nature. “The Ministry of Energy and Petroleum and PDVSA contribute to the creation of a national model of development where communities with lower incomes can improve the social welfare conditions available in their own neighborhoods, and achieve an improvement in their standard of living”</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$1,188.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$1,263.89</td>
<td></td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Company provides complete audited statements that are reported to be compatible with international standards. The company does not need to comply with SEC requirements.</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>PDVSA was created in 1975 and has been granted constitutional status since then. That status has evolved as the constitution and the relevant laws have been replaced over time. In general, the NOC is a key element of the government's strategy and will persist.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>While high oil prices have led to historically high revenues in recent years, Venezuela's production and export volumes have declined. According to industry experts PDVSA would need to make substantial investments to maintain production levels at existing fields, as many of these fields suffer annual decline rates of at least 25 percent. Harsher fiscal regimes and the broad mission of PDVSA may hinder its ability to meet this goal. The recent strengthening of alliances with other petroleum producers in Europe, Asia and the Middle East may help PDVSA to address this problem.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>67,381</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>37,547</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>105.07</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>84.33%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>25.42%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>87,035.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>181,870.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>118,391.98</td>
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<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>73.51% oil?</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.98% oil?</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>288.29%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<tr>
<td>6</td>
<td>2007</td>
<td>Energy Cooperation in the Western Hemisphere, Ch 16 (Foss, Wainberg, Volkov), CSIS</td>
<td><a href="http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/">http://www.csis.org/component/option,com_csis_pubs/task,view/id,3679/type,2/</a></td>
</tr>
<tr>
<td>8</td>
<td>2008</td>
<td>PDVSA website</td>
<td><a href="http://www.pdvsa.com">http://www.pdvsa.com</a></td>
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</tbody>
</table>
The NOCs in the Middle East and North Africa
### Summary Report

#### Corporate Governance Highlights

<table>
<thead>
<tr>
<th>Corporate Organization and Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company’s shareholder is the Algerian state.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shares Controlled by Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domestic, International Exchanges for Equity Listings</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
</tbody>
</table>

#### Board of Directors Structure

The board of directors includes 12 members and the chairman/CEO. Many board members are representatives of various ministries, including Ministry of Finance, Bank of Algeria, Ministry of Hydrocarbons; other members include representatives of Sonatrach and employee representatives.

#### Independent Board Members

Because of their affiliation with the Algerian ministries, it does not appear that BOD members are independent.

Is chairman also minister of energy or otherwise appointed by head of state?
Yes

### Operations Highlights

#### Upstream Oil

Sonatrach operates internationally; with partnerships in Egypt (offshore), Mauritania, Mali, Libya, Egypt and Peru.

#### Midstream Oil

Sonatrach operates 14 oil pipelines, with transport capacity of 79.44 million tons of crude oil and condensate.

#### Downstream Oil

Naftec, a subsidiary of Sonatrach, operates Algeria's four refineries, which supply most of the country’s refined oil product needs.

#### Upstream Natural Gas

Sonatrach has more than 10 natural gas fields. The largest, the Hassi R'Mel field accounts for 63% of its natural gas production (94 bcm). In 2006, 5 gas discoveries were made. Upstream subsidiaries include: ENAGEO (geophysics company); ENTP (well engineering company); GCB (civil engineering and construction company); ENSP (well services company); ENAFOR (drilling company); ENGTP (major oil projects company).

#### Midstream Natural Gas

Sonatrach's natural gas network is 16,197 km. Sonatrach Pipeline Transportation is responsible for carrying Sonatrach crude oil, gas and condensate to oil terminal ports, the Group’s storage facilities and export countries. Sonatrach is engaged in 3 new pipeline projects: Medgaz (construction launched in July 2007), Galsi (as of 2007, in process of intergovernmental discussions between Algeria and Italy) and TransSahara Gas Pipeline (TSGP, technical viability confirmed; in process of drafting management document for the project’s development phase). Algeria is the earliest entrant to the global LNG industry: the first commercial scale natural gas liquefaction facility was built in Algeria in 1964. LNG remains a large component of Sonatrach's activities. Algeria is the second largest LNG exporter worldwide. As of 2006, Sonatrach had 4 LNG facilities which supplied 27 bcm of LNG.

#### Downstream Natural Gas

Sonatrach's downstream natural gas businesses include LPG separation and sales, petrochemicals and industrial gas production, mainly helium and nitrogen.

#### Other

As reported, Skikda power plant operated by Sonatrach subsidiary AEC supplied total generated electricity of 3,386,000 MWh, with and availability rate of 8%.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>472</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>5,295</td>
</tr>
</tbody>
</table>
Hydrocarbons play a crucial role in Algeria's economy, accounting for roughly 60% of budget revenues and over 95% of export earnings. Algeria faces a number of internal security issues associated with the country's sociopolitical context, the civil war and related conflicts over the years. A relative peace has enabled stronger economic growth, fueled by higher prices for Algeria's oil and gas commodities. Algeria is an active member of OPEC and, with Russia and Qatar, has pushed engagement in the Gas Exporting Countries Forum. Algeria's fiscal regime creep may affect its attractiveness to investors. Internal security issues are associated with continued social tensions. These pose considerable risks to Sonatrach's infrastructure systems. Although Algeria's prominent position as a key European energy supplier provides it with a great opportunity to strengthen its international role, the greatest challenge for Algeria is to diversify its economy that remains reliant on hydrocarbons.
## Algeria: Sonatrach

### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td></td>
<td>Algeria's Sonatrach (through its subsidiaries) has a monopoly on oil production, refining and transportation. It is responsible for oil and gas exploration and production, transport, refining, transport, distribution and marketing.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
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<td></td>
<td>The company's shareholder is the Algerian state.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td></td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006</td>
<td>1</td>
<td>The board of directors includes 12 members and the chairman/CEO. Many board members are representatives of various ministries, including Ministry of Finance, Bank of Algeria, Ministry of Hydrocarbons; other members include representatives of Sonatrach and employee representatives.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>No independent Board member.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data.</td>
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<td>Indicator Category</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2006</td>
<td>3-17</td>
<td>Project/budget/investment decisions made by the BOD are submitted to the General Assembly for information.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2006</td>
<td>3-17</td>
<td>Sonatrach's budget and strategies are heavily influenced by the Government, and by the General Assembly. Because of the country’s political reality and its reliance on Sonatrach's revenue streams, the NOC’s budget may be unpredictable.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes, Sonatrach may partner with other entities. Many foreign gas producers have entered into numerous partnership agreements with Sonatrach.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006</td>
<td>4-2</td>
<td>Sonatrach's mission is: &quot;to meet Algeria's present and future needs; to maximize the long-term value of Algeria's hydrocarbon resources; and to contribute to national development, primarily by providing the required hard currency revenues.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2006</td>
<td>3-17</td>
<td>Project/budget/investment decisions made by the BOD are sent to the General Assembly for information. But, company budget is influenced by the GA due to importance of Sonatrach’s revenues for the country.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2006</td>
<td>1-83-84</td>
<td>Company employees number 40,252 (94% permanent and 6% temporary). There are 15,082 engineers, executives and senior technicians, representing 40% of the workforce. Female staff accounts for 4,572. Among permanent staff, executives make 37% of employees; supervisory staff...</td>
</tr>
<tr>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2006</td>
<td>1-3</td>
<td>&quot;Human resources is a top priority for us and in 2006, we solemnly adopted the Sonatrach human resource policy and gave a new impulse to our Group's personal and professional development projects, the development of skills, the recognition of merit and reward of performance.&quot; The company has extensive training and development programs.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2006</td>
<td>3-28</td>
<td>No non-commercial activities reported in the 2006 Annual Report. However, the Minister's presentation in 2006 names Sonatrach &quot;a Citizen Company&quot; and mentions a &quot;special budget&quot; which includes Tassili Foundation, support to scientific research, professional training, solidarity, culture, sport and health.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td></td>
<td>Sonatrach operates internationally; with partnerships in Egypt (offshore), Mauritania, Mali., Libya, Egypt and Peru.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>Sonatrach operates 14 oil pipelines, with transport capacity of 79.44 million tons of crude oil and condensate.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>Naftec, a subsidiary of Sonatrach, operates Algeria's four refineries, which supply most of the country’s refined oil product needs.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1-27</td>
<td>Sonatrach has more than 10 natural gas fields. The largest, the Hassi R’Mel field brings 63% to natural gas production (94 bcm). In 2006, 5 gas discoveries were made. Upstream subsidiaries include: ENAGEO (geophysics company); ENTP (well engineering company); GCB (civil engineering and construction company); ENSP (well services</td>
</tr>
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### Algeria: Sonatrach

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<tr>
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<tbody>
<tr>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006, Current 1-34; 1-14; 9</td>
<td>Sonatrach's natural gas network is 16,197 km. Sonatrach Pipeline Transportation is responsible for carrying Sonatrach crude oil, gas and condensate to oil terminal ports, the Group’s storage facilities and export countries. Sonatrach is engaged in 3 new pipeline projects: Medgaz (construction launched in July 2007), Galsi (as of 2007, in process of intergovernmental discussions between Algeria and Italy) and Trans-Sahara Gas Pipeline (TSGP, technical viability confirmed; in process of drafting management document for the project’s development phase). Algeria is the earliest entrant to the global LNG industry: the first commercial scale natural gas liquefaction facility was built in Algeria in 1964. LNG remains a large component of Sonatrach’s activities. Algeria is the second largest LNG exporter worldwide. As of 2006, Sonatrach had 4 LNG facilities which supplied 27 bcm of LNG.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td>Sonatrach's downstream natural gas businesses include LPG separation and sales, petrochemicals and industrial gas production, mainly helium and nitrogen.</td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td>As reported, Skikda power plant operated by Sonatrach subsidiary AEC supplied total generated electricity of 3,386,000 MWh, with and availability rate of 8%.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>56%</td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining throughput (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>53%</td>
<td></td>
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<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td></td>
<td>15%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td></td>
<td>0%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>17%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>29%</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>7</td>
<td>Algerian economic growth is mainly driven by oil and natural gas exports (98 percent of Algerian exports (by value) in 2006).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2005</td>
<td>8</td>
<td>The 2005 Hydrocarbon Law established a clear separation between policy, regulatory, and commercial roles. Two regulatory agencies were created, ANH and ALNAFT, and Sonatrach’s role was redefined to release its regulatory functions. In addition, the Hydrocarbon Law provided access to petroleum exploration and production rights to companies other than Sonatrach, although it granted Sonatrach the option to participate into the exploitation phase up to a maximum 30% but no lower than 20%. The implementation of the Law suffered several delays and modifications. In 2006 the Law was amended by a Presidential Decree that restored the quasi-monopoly of state-owned Sonatrach over hydrocarbons upstream activities, transport, and refinery and reduced the autonomy of the regulatory and contract award agencies of the hydrocarbons sector.</td>
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<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2006 3-18</td>
<td>The Fund for the Regulation of Receipts (FRR) was set up in 2000 to insulate the Algerian economy from price volatility in gas &amp; oil commodity prices. The FRR accumulates revenues above a reference price defined for budget preparation purposes, and provide funds to finance the Budget when the oil price falls below the reference price. The Fund does not issue statistics of its holdings.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2006, Current 3-4, 10, 11</td>
<td>Sonatrach representatives have participated in EITI workshops in 2003, 2005, and 2006. Algeria is not a candidate country. National Democratic Institute operates in the country. Transparency International maintains a national chapter in Algeria but has no web site.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2005 8</td>
<td>The Hydrocarbon Law 2005 brought some positive changes to the fiscal regime, including the elimination of the requirement to participate in all projects. Later amendment to the Law however granted Sonatrach the option to participate, at least 51%, in all competitive bids for exploitation and development contracts. Tax payments are now made directly by the IOCs to the Treasury (in the past taxes were calculated and paid by Sonatrach on behalf of the IOCs without the intervention of the tax administration. A windfall tax on IOC profits were added in an effort to capture projects’ upsides at rising oil prices (a surcharge ranging from 5 to 50% is applied to “exceptional profits” whenever the average monthly oil...</td>
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### Algeria: Sonatrach

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<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2006</td>
<td>Algeria is a maturing oil and gas province. The fiscal regime may need to become more flexible in order to attract foreign investment at the level and pace that would be needed to sustain production and expand/improve infrastructure, especially if the oil price should fall.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2006</td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006</td>
<td>The institutional and fiscal reforms introduced by the Hydrocarbon Law 2005 have greatly enhanced the governance and attractiveness of Algeria’s petroleum sector to investors. Although some of the most innovative reforms introduced by the law were later smoothed or eliminated, Algeria was able to maintain its competitive appeal on the market.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2006</td>
<td>Bidding process, agreements information is available for investors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006</td>
<td>There are many joint ventures. Sonatrach is required to bid for projects just like other IOCs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2006</td>
<td>Sonatrach uses turnkey contracts for various projects, such as refinery upgrades, recovery enhancement, etc.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2006</td>
<td>Vertically integrated company specializing in natural gas, oil and power generation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE</td>
<td>2006</td>
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### International Presence

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<tr>
<td>Other Factors</td>
<td>Change in company BOE production from international operations (%)</td>
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<tr>
<td>Other Factors</td>
<td>Does NOC make investments abroad</td>
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<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
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<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
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### Commercialization

<table>
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<tr>
<td>Other Factors</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Prior to the 2005 hydrocarbons law, companies were required to partner with Sonatrach through PSAs. That requirement was lifted by the 2005 law. Later amendments to the law introduced Sonatrach’s right to obtain a minimum of 51% participation in all competitive bids for exploration and development contracts.</td>
<td>2005 8</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>The new Hydrocarbon Law encourages midstream competition. However, later amendments to the Law backtracked on the role of Sonatrach in the transportation via pipelines and the refineries, making the national oil company a de facto monopoly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>There are many successful joint ventures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>There are no plans to privatize Sonatrach.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2006 1-94, 95</td>
<td>Many successful international ventures.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>There appears to be no non-core commercial activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>The National Agency for the Development of Hydrocarbon Resources (Alnaft) is a regulatory agency, but it is not clear if it is fully autonomous or is part of the Ministry of Energy and Mining.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and address conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>Appeals to international arbitration are allowed if conciliation with Alnaft has failed, per Hydrocarbon Act.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>Downstream prices are set directly by the government, and fuel subsidies are provided.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>Sonatrach is clearly the major contributor to Algerian socioeconomic programs but the extent of its obligations is unknown.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>$947.66</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td>$16.31</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>$1,098.61</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>Operating and financial data are quite extensive. Overall transparency with regard to country financial flows is low.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>Sonatrach was established in 1963 and is likely to remain in place well into the future.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Hydrocarbons play a crucial role in Algeria's economy, accounting for roughly 60% of budget revenues and over 95% of export earnings. Algeria faces a number of internal security issues associated with the country's sociopolitical context, the civil war and related conflicts over the years. A relative peace has enabled stronger economic growth, fueled by higher prices for Algeria's oil and gas commodities. Algeria is an active member of OPEC and, with Russia and Qatar, has pushed engagement in the Gas Exporting Countries Forum. Algeria's fiscal regime creep may affect its attractiveness to investors. Internal security issues are associated with continued social tensions. These pose considerable risks to Sonatrach's infrastructure systems. Although Algeria's prominent position as a key European energy supplier provides it with a great opportunity to strengthen its international role, the greatest challenge for Algeria is to diversify its economy that remains reliant on hydrocarbons.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>46,574</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>30,827</td>
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<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

<table>
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<th>Source Description</th>
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<tr>
<td>7</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Algeria</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Algeria/Full.html">http://www.eia.doe.gov/emeu/cabs/Algeria/Full.html</a></td>
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<td>9</td>
<td>Current</td>
<td>Introduction to LNG, CEE-UT</td>
<td><a href="http://www.beg.utexas.edu/energyecon/lng/documents/CEE_INTRODUCTION_TO_LNG_FINAL.pdf">http://www.beg.utexas.edu/energyecon/lng/documents/CEE_INTRODUCTION_TO_LNG_FINAL.pdf</a></td>
</tr>
</tbody>
</table>
Egypt: Egyptian General Petroleum Corporation (EGPC)

### Corporate Governance Highlights

**Corporate Organization and Ownership**
EGPC was incorporated in Egypt according to the Law no. 135 of 1956 under the name of "The General Corporation of Petroleum Affairs". EGPC Group comprises the holding, and 12 public sector companies. In addition, there are over 50 joint venture companies with foreign partners.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
The EGPC BOD has 13 members.

**Independent Board Members**
No

**Is chairman also minister of energy or otherwise appointed by head of state?**
No

### Operations Highlights

**Upstream Oil**
EGPC operates solely in Egypt and has sole access to resources.

**Midstream Oil**
EGPC operates mainly on PSA and JV basis; it also has production affiliates.

**Downstream Oil**
El Nasr Petroleum Company, an EGPC subsidiary, operates 9 refineries with a combined crude oil processing capacity of 761,700 B/D.

**Upstream Natural Gas**
EGPC acts mostly as a JV partner and state representative.

**Midstream Natural Gas**
The company participates in two LNG projects, with 20% in each.

**Downstream Natural Gas**
The company does not participate in downstream gas.

**Other**
Does not participate

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
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<th>Category</th>
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<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
</tr>
<tr>
<td>10,750</td>
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<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
</tr>
<tr>
<td>47,917</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
</tr>
<tr>
<td>0.047</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
</tr>
<tr>
<td>1,100</td>
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<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
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### Financial Performance Highlights (2004-2007; not all years or data reported)

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<th>Category</th>
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<tr>
<td><strong>Consolidated Average Total Revenues($Millions)</strong></td>
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<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Consolidated Average Total Assets($Millions)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
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</tr>
<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
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<td>-1,850</td>
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### Categories Indicators

<table>
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<tr>
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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
<td>45</td>
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<tr>
<td>Commercialization</td>
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<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
<td>97</td>
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<tr>
<td>Local Contribution</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>50</td>
</tr>
<tr>
<td>Average</td>
<td>47</td>
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</table>

### Worldwide Governance Indicators

Egypt has been pursuing an aggressive programme of reform in recent years, with the opening of both political and economic arenas. Changes to economic policies are underway to minimize the role of the state and make it easier to open a business. The privatization of state-owned firms has already brought in almost $3bn, and according to the IMF, GDP growth is expected to remain at around 7% or 8% for 2008. A reorganisation of the oil and gas sector in 2000 has led to a greater emphasis on efficiency and attracting international investment. Hydrocarbons are among Egypt's most valuable resources, with particular emphasis on natural gas. However, there are concerns that declining oil production and increasing energy demand may turn the country into a net importer. So far, improvements in the tax regime and investment environment have been sufficient to encourage new discoveries and better recovery techniques but the pace of investment has been somewhat slower than needed. Although Egypt has gone a long way to restructure its economy, much remains to be done, including the strengthening of economic efficiency of the remaining public enterprises, the improvement of the transport systems, and the introduction of further reforms to reduce social inequalities.
### Database

<table>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>The petroleum sector in Egypt consists of 5 strong state-owned entities. These are: Egyptian General petroleum Corporation (EGPC), Egyptian Natural Gas Holding Company (EGAS), Egyptian Petrochemicals Holding Company (ECHEN), Ganoub El Wadi Petroleum Holding Company (GANOPE), and Egyptian General Authority for Mineral Resources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>1</td>
<td>5 major in each sector (over 15 overall including JV’s between NOCs etc)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1</td>
<td>EGPC was established in 1962 as an evolution from the General Petroleum Authority which was created in 1956. It grew rapidly as it became in charge of 50-50 E&amp;P ventures with Amoco (now part of BP), Agip and many other foreign companies. The government in 1964 nationalised the sole oil concessionaire, Anglo-Egyptian Oilfields (Shell-BP). The assets of this company were taken over by General Petroleum Company (GPC), which was also created in 1956 and is now one of EGPC’s operating subsidiaries. As a result of the reform of the oil sector in 2000 natural gas and petrochemicals activities were transferred to other state owned companies and an independent entity was created for oil and gas activities in the Upper Egypt.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>1</td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>1</td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>Current 12</td>
<td>Egyptian General Petroleum Export Notes (Preliminary Ratings)</td>
<td>S&amp;P A AA (A-1 and A-2 Notes) and BBB (A-3 Notes) Egyptian General Petroleum Export Notes (Provisional Ratings) Moody’s Aaa (A-1 and a-2 Notes) and Baa1 (a-3 Notes)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>Current 13</td>
<td>The EGPC BOD has 13 members.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007 14</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Could be reappointed, and can probably be removed by the Sovereign.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>EGPC has some budget authority but authority is shared with the Ministry of Petroleum.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Source</td>
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<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>EGPC operates solely in Egypt and has sole access to resources. Private participation is encouraged yet EGPC participation in JVs is legally required</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2006 8</td>
<td></td>
<td>EGPC operates mainly on PSA and JV basis; it also has production affiliates.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>Current 9</td>
<td></td>
<td>El Nasr Petroleum Company, an EGPC subsidiary, operates 9 refineries with a combined crude oil processing capacity of 761,700 B/D.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006 8</td>
<td></td>
<td>Does not participate</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006 8</td>
<td></td>
<td>Does not participate</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>Does not participate</td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>168%</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>12%</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>10%</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
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</tr>
<tr>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg operating cash flow vs. costs incurred (%)</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td>No data</td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>87%</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>9%</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>17%</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
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<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>1</td>
<td>&quot;Any petroleum project that takes place in Egypt should be value added to the Egyptian economy and should affect investment distinctively. It should also contribute to providing direct and indirect job opportunities whether during the construction or the operation phases.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>1</td>
<td>The hydrocarbon sector is governed by a Ministry of Petroleum and Mineral Resources. The Egyptian General Authority for Mineral Resources was created in 2000, and EGPC was broken down in 5 NOCs with distinct areas of responsibility and governing structures. The specific roles and responsibilities of the Ministry, the Authority, and the NOCs are not publicly</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Current 9, 10 Egypt is not a candidate country for EITI. The National Democratic Institute has operated there, and Transparency International established a chapter; however, there is no local contact.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008 1 No data. Crude oil production has been in decline for several years since its peak level in 1993. Internal demand has been growing steadily and projections show that Egypt could turn into a net importer in the very near future. For this reason, the government has been encouraging the exploration, production and domestic consumption of natural gas. On the other hand, natural gas output continues to increase. Natural gas is among Egypt’s key exports, and it is expected to more than meet its domestic demand for many years to come. Expanding the Egyptian petrochemical industry and increasing exports of natural gas are considered strategic objectives by the Ministry of Petroleum and Mineral Resources.</td>
<td></td>
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<tr>
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<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>The fiscal regime is considered adequate, given the medium sovereign risk and the good prospectivity.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>7</td>
<td>Hydrocarbon laws appear to be rather attractive with regard to contractual terms and conditions.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>PSAs and JV's are both actively used.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>PSAs and JV's</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>EGPC partners utilize turnkey contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>-2%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
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</table>

A Citizen's Guide to National Oil Companies
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td>1,7</td>
<td>At least 57 private companies, including 6 from Egypt, operate in the country's upstream segment. Concessions are exclusive to the NOCs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>6</td>
<td>At least 29 companies with foreign participation and 39 Egyptian companies. In general, investors are required to have an NOC as a partner.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>Mainly PSAs and JV's</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>The Ministry of Petroleum and Mineral Resources and the Egyptian General Authority for Mineral Resources hold the regulatory function. Respective responsibility, staffing, budgeting and capabilities are not clear.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>No</td>
<td></td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>There appears to be a low level of independence with regard to hydrocarbon regulation and oversight.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Current 11, 15</td>
<td>Fuel subsidies are widely used in Egypt. Attempts have been made to reduce subsidies for energy and other needs but they are still a drain on the government's budget (more than 7% of GDP). The lack of cost recovery for refined products, and under-investment, have resulted in chronic shortages. Egypt's NOCs are not as prominent in their revenue contributions as in other countries although higher commodity prices in recent years have certainly helped.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>Public domain data is essentially non-existent.</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008 1</td>
<td>Given the overall organization of Egypt's economy, the company is likely to remain in place for the long term.</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Other Comments</td>
<td>Country Status</td>
<td></td>
<td></td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>436,585</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>3,741.84</td>
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<td>Other</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>30.66</td>
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<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>8.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>2.6%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>4,070.00</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>72,854.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>16,631.06</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>96%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>24.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>125.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
<td></td>
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### Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
<th>Source Description</th>
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<tr>
<td>8</td>
<td>2006</td>
<td>USEIA Country Analysis Brief - Egypt</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Egypt/Background.htm">http://www.eia.doe.gov/emeu/cabs/Egypt/Background.htm</a></td>
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<td>10</td>
<td>Current</td>
<td>Transparency International - Egypt</td>
<td><a href="http://www.transparency.org/content/view/full/229">http://www.transparency.org/content/view/full/229</a></td>
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</table>
Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
The National Iranian Oil Company is the only NOC operating in the upstream petroleum sector under the responsibility of the Ministry of Petroleum.

Shares Controlled by Government
100%

Corporate Organization and Ownership
The National Iranian Oil Company is the only NOC operating in the upstream petroleum sector under the responsibility of the Ministry of Petroleum.

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
Managing Director, Director Corporate Planning, Managing Director South Oil Company, Director of Finance, Director Exploration, Director Administration, Head Legal Affairs, Director Research and Development, Head Pension Fund.

Independent Board Members
No, all of them are internal and in some cases, part of the Iranian Ministry of Petroleum

Is chairman also minister of energy or otherwise appointed by head of state?
Yes

Operations Highlights

Upstream Oil
NIOC is responsible for all oil and gas E&P in Iran. Among NIOC’s subsidiaries, the National Iranian South Oil Company (NISOC) and Petroleum Development & Engineering Company (PEDEC) are the most relevant. NISOC accounts for 80% of local oil production, and PEDEC is responsible for all buy-back projects under operation, study or negotiation.

Midstream Oil
The National Iranian Oil Refining and Distribution Company (NIORDC) is a state-owned company under the responsibility of the Ministry of Petroleum. Among its responsibilities, NIORDC owns and operates approximately fourteen thousand kilometers of crude oil and oil product transfer pipelines.

Downstream Oil
Since 1992, NIOC does not engage in downstream activities. The National Iranian Oil Refining and Distribution Company (NIORDC) is a state-owned company under the responsibility of the Ministry of Petroleum.

Upstream Natural Gas
NIOC operates in the upstream natural gas segment.

Midstream Natural Gas
National Iranian Gas Company operates the internal market and conducts research and services related to natural gas utilization.

Downstream Natural Gas
National Iranian Petrochemical Company develops petrochemical applications.

Other
Does not have other activities.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>137,000</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>994,401</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>1,460</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>15</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>592</td>
</tr>
</tbody>
</table>

Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>No data</td>
</tr>
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Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>31</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>26</td>
</tr>
<tr>
<td>Commercialization</td>
<td>67</td>
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<tr>
<td>Fiscal Regimes</td>
<td>50</td>
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<tr>
<td>Resource Endowment</td>
<td>57</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>76</td>
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<tr>
<td>Local Contribution</td>
<td>0</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>33</td>
</tr>
<tr>
<td>Average</td>
<td>51</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Iran is one of the most geopolitically sensitive locations. It is heavily dependent upon its hydrocarbon sector for national economic development. International sanctions and pressures have limited development of the Iranian oil and gas businesses and resources. A number of alliances have developed between Iran and other governments with sympathetic views. Large scale projects are under consideration, such as the Iran-Pakistan-India pipeline, but these are also highly sensitive and high risk projects.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>Current</td>
<td>1</td>
<td>The National Iranian Oil Company (NIOC) is the sole upstream NOC in Iran. It is organized in 11 subsidiaries with specific regional and functional responsibility.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>Current</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>Current</td>
<td>1</td>
<td>The National Iranian Oil Company (NIOC) was established in February 1948 with the objective of exploration, development, production, marketing of crude oil and natural gas. There are three other state owned companies under the responsibility of the Ministry of Petroleum: the National Iranian Gas Company performs advisory, engineering and study services; the National Iranian Petrochemical Company is responsible for the development and operation of the country's petrochemical sector; and the National Iranian Oil Refining and Distribution Company performs refining and distribution activities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>Current</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>Current</td>
<td>1</td>
<td>Not listed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>Current</td>
<td>1</td>
<td>No bonds are traded for NIOC</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>Current</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>Current</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>Current</td>
<td>1</td>
<td>Managing Director, Director Corporate Planning, Managing Director South Oil Company, Director of Finance, Director Exploration, Director Administration, Head Legal Affairs, Director Research and Development, Head Pension</td>
</tr>
</tbody>
</table>

Database
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>Current</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>Current</td>
<td>1</td>
<td>No, all of them are internal and in some cases, part of the Iranian Ministry of Petroleum</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>Current</td>
<td>1</td>
<td>Given the composition of NIOC’s General Assembly (the President of the Republic, the Vice President, the Oil Minister, the Labor and Social Affairs Minister, the Industries and Mining Minister, and the Director of Planning and Administration), the level of budgetary autonomy is likely to be low.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>Current</td>
<td>1</td>
<td>Budget process is not separate from the government and can be unpredictable. The Supreme Economic Council was founded to centralize economic decision making. It is also responsible for ensuring that state subsidies are appropriately administrated. All NIOC-proposed budgets and contracts must be previously evaluated and approved by this council.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2006</td>
<td>2</td>
<td>Yes. NIOC has looked into the Asian market to strengthen relationships. Both Chinese and Japanese have been brought into the Iranian oil sector.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>Current</td>
<td>1</td>
<td>No mission statement is provided, but it is clear that NIOC is critical to exploitation of Iran's resource endowments.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>No disclosed information or audited data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>Current</td>
<td>1</td>
<td>Noncommercial objectives appear to be the domain of the Ministry of Petroleum that reports 378 social development projects as being underway.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>Current, 2007</td>
<td>1, 3</td>
<td>NIOC is responsible for all oil and gas E&amp;P in Iran. Among NIOC's subsidiaries, the National Iranian South Oil Company (NISOC) and Petroleum Development &amp; Engineering Company (PEDEC) are the most relevant. NISOC accounts for 80% of local oil production, and PEDEC is responsible for all buy-back projects under operation, study or negotiation.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>The National Iranian Oil Refining and Distribution Company (NIORDC) is a state-owned company under the responsibility of the Ministry of Petroleum. Among its responsibilities, NIORDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
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<td>---------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>owns and operates approximately fourteen thousand kilometers of crude oil and oil product transfer pipelines.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>NIOC operates the upstream natural gas segment.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>National Iranian Gas Company operates the internal market and conducts research and services related to natural gas utilization.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>NIOC does not have other activities.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
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<td></td>
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<tr>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>-------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>The oil and gas sector in Iran operates under the full supervision of the Ministry of Petroleum (MoP), which covers a myriad of activities such as exploration, engineering and construction, refining, transportation, distribution, services and research. The Oil Act of 1987 placed all oil-related operations under government authority and specifies the MoP’s functions. Commercial activities are carried out by NIOC and the other state-owned companies operating under the responsibility of the Ministry of Petroleum.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>The oil ministry appears to have always had responsibility for many non-commercial obligations funded through Iran's hydrocarbon revenue stream.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>There is no transparency related to revenue flows within the Iranian government. The Iran Oil Stabilization Fund was created in 1998 to invest Iran’s oil revenue abroad. Its investment arm, the Iran Foreign Investment Company provides financing and financial services and makes investments around the world.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Iran is not a candidate country for EITI. No other transparency programs operate in the country.</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>The primary issue appears to be the heavy subsidies applied to energy fuels. This burdens NIOC and the other state owned companies in the hydrocarbons sector, in particular with respect to downstream (refining) investments to address critical capacity shortages in the country.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>Certainly, there is activity in Iran, and various relationships surrounding oil and natural gas exploitation. The extent to which these are indicative of accommodating fiscal regimes is not known.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>6 2000</td>
<td>“The Iranian constitution prohibits the granting of petroleum rights on a concessionary basis. However, the 1987 Petroleum Law permits the establishment of contracts between the Ministry of Petroleum, state companies and &quot;local and foreign natural persons and legal entities.&quot;</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>NIOC indicates tenders are available, but no information is publicly available. A number of quasi-governmental companies often act as the main local partner with foreign oil companies: NIOC awards projects to these firms who are then free to take on international partners.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>Contracts are negotiated by NIOC and subject to approval by the Iranian government.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>NIOC and its partners manage turnkey contracts. NIOC also has its own services.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>All of the oil and gas value chains are controlled through the oil ministry.</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes.</td>
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<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>There are joint activities between NIOC and Lukoil but relationships are dominated by NOC-NOC alliances and partnerships.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Iran's upstream is dominated by its own NOC and state owned companies.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Managed by the Iranian companies.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>None</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Little information is available, save for what appears occasionally in the international and trade press.</td>
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<tr>
<td>Indicator Category</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>None of the NOCs appear to engage in activities outside of their core segments.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>None</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government, brief description of subsidy program, approach, cost</td>
<td>Fuels are heavily subsidized in Iran. Resulting capacity constraints associated with strong demand growth and underinvestment because of lack of cost recovery and internal transfers resulted in fierce shortages. NIORDC has been administering a fuel rationing program as the Iranian government seeks to smoothen disruptions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>The Ministry of Petroleum appears to absorb these obligations.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Information is sparse and inconsistent.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2003</td>
<td>1</td>
<td>Drilling for oil started in Iran in 1901 under the concession of Mozafaroll din, shah of the Qajar, for production of crude oil across Iran. Iran became the first country of the oil-rich Middle East region to begin oil operations. Oil nationalization in 1950, substitution of foreign workers with Iranians by 1979. National Oil Company of Iran was founded on 1948 when the Anglo-Iranian Company was nationalized. In 1953 it became a conglomerate of different companies 40% owned by the Anglo-Iranian holding, 5 American companies holding 40% and Royal Dutch Shell &amp; Compagnie Francaise de Petroles holding 10% each.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Iran is one of the most geopolitically sensitive locations. It is heavily dependent upon its hydrocarbon sector for national economic development. International sanctions and pressures have limited development of the Iranian oil and gas businesses and resources. A number of alliances have developed between Iran and other governments with sympathetic views. Large scale projects are under consideration, such as the Iran-Pakistan-India pipeline, but these are also highly sensitive and high risk projects. Fuel subsidies have created an artificially high internal demand. Although some rationalization has occurred, subsidies remain a heavy burden for the state.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>125,000</td>
<td></td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>16,434</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>134.49</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>72.94%</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>24.47%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>138,400.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>981,747.62</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>307,666.83</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>44.98%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td>99.96%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td>179.78%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>1</td>
<td>2008</td>
<td>NIOC web site</td>
<td><a href="http://www.nioc.ir">www.nioc.ir</a></td>
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<td>2</td>
<td>2006</td>
<td><a href="http://www.japanfocus.org">www.japanfocus.org</a></td>
<td><a href="http://www.japanfocus.org">www.japanfocus.org</a></td>
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<td>2007</td>
<td>USEIA Country Analysis Brief - Iran</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Iran/Oil.html">http://www.eia.doe.gov/emeu/cabs/Iran/Oil.html</a></td>
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<td>5</td>
<td>2008</td>
<td>Zawya Middle East Business Information</td>
<td><a href="http://www.zawya.com/cm/profile.cfm/cid1002385">http://www.zawya.com/cm/profile.cfm/cid1002385</a></td>
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<td>6</td>
<td>2000</td>
<td>USEIA</td>
<td><a href="http://web.macam.ac.il/~arnon/Int-ME/oil/Iran%20energy%20oil%20information.htm">http://web.macam.ac.il/~arnon/Int-ME/oil/Iran%20energy%20oil%20information.htm</a></td>
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### Kuwait: Kuwait Petroleum Corporation (KPC)

#### Summary Report

**Corporate Governance Highlights**

- **Corporate Organization and Ownership**
  - Incorporated in Kuwait, 1980
- **Shares Controlled by Government**
  - 100%
- **Domestic, International Exchanges for Equity Listings**
  - None
- **Board of Directors Structure**
  - There are 10 members on the KPC BOD.
- **Independent Board Members**
  - Yes
- **Is chairman also minister of energy or otherwise appointed by head of state?**
  - Yes

#### Operations Highlights

**Upstream Oil**

Through its affiliate, Kuwait Foreign Petroleum Exploration Company (KUFPEC), KPC operates in 16 countries: Indonesia, Malaysia, Pakistan, Yemen, Qatar, Syria, Australia, China, Philippines, Tunisia, Egypt, Ivory Coast, Sudan, Algeria, Mauritania. It does not have sole access to country's resources. Affiliates Kuwait Gulf Oil Company (KGOC) and Kuwait Oil Company (KOC) engage in domestic oil and gas E&P with partners. Affiliate Oil Development Company was established in 2005 specifically to engage with IOCs for development of 4 oil fields in northern Kuwait.

**Midstream Oil**

KOC transports and stores oil production for export. Affiliate Kuwait Oil Tanker Company (KOTC) has a fleet of 24 tankers with total deadweight over 3 million tons. Kuwait Aviation Fueling Company specifically handles jet fuel storage and supply.

**Downstream Oil**

Affiliate Kuwait National Petroleum Company (KNPC) operates 3 refineries domestically and the domestic gasoline station network. Retail outlets are both owned and franchised with ongoing privatization process. Through affiliate Petrochemical Industries Company (PIC), KPC owns 4 plants for production of liquid ammonia, 2 of which operate at present with a total annual capacity of 620,000 metric tons and 3 plants for urea production with a total annual capacity of 104,000 metric tons. Also, KPC established in 1997 two plants for polypropylene with a production capacity of 100,000 tons annually. Kuwait Petroleum International Ltd (KPI) manages downstream refining and marketing interests abroad (the Q8 brand).

**Upstream Natural Gas**

Kuwait Oil Company (KOC) produces domestic natural gas as part of its upstream portfolio. KUFPEC participates in natural gas E&P abroad.

**Midstream Natural Gas**

KOC handles all infrastructure requirements as the country moves to increase production of natural gas, including captured flared gas, and to deploy natural gas for power generation, desalination and other applications.

**Downstream Natural Gas**

KOC operates a natural gas processing as part of surface facilities development for natural gas exploitation.

**Other**

None

#### Operations Performance Highlights (2004-2007; not all years or data reported)

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<thead>
<tr>
<th>Operations</th>
<th>Description</th>
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<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
<td>2,360</td>
<td></td>
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<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
<td>1,141</td>
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<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
<td>330</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

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<td>Public Sector Governance</td>
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<td>Commercialization</td>
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<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
<td>46</td>
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<td>Local Contribution</td>
<td>95</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>56</td>
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<tr>
<td>Average</td>
<td>62</td>
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</table>

Worldwide Governance Indicators

Kuwait's economy is almost completely dependent on revenues from its hydrocarbon sector and operations. The country and its companies are recognized for their commercial savvy and construction of international business networks. Kuwait is also recognized as having distinct possibilities with regard to political liberalization. Of interest is whether the close control and opaqueness of Kuwait's hydrocarbons businesses are compatible with apparent (or potential) trends in this regard. Kuwait's indigenous population is small and thus the country has traditionally relied on an extensive foreign workforce for its core industries. A number of sensitivities reside around this reality.
### Corporate Governance

<table>
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<tr>
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<th>Indicator Description</th>
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<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Kuwait Petroleum Corporation (KPC) is a holding combining various oil &amp; gas and petrochemical companies.</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td></td>
<td>1 – KPC is the umbrella for about 10 subsidiaries and affiliates.</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>Incorporated in Kuwait, 1980</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>There are 10 members on the KPC BOD.</td>
<td></td>
</tr>
<tr>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>Yes. The Board of Directors reports to the Supreme Petroleum Council (SPC). The chairman of the BOD is Kuwait's Minister of Oil. Mr. Saad Al Shuwaib, serves currently as the Chief Executive Officer.</td>
<td></td>
</tr>
<tr>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2005</td>
<td>14</td>
<td>Recruitment is performed by the KPC board and minister.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2005</td>
<td>14</td>
<td>The board has the following authorities: &quot;Approval of general policy; Approval for capital expenditures; Approval of administrative and financial bylaws; Discussion and endorsement of annual report, financial results, budget, and profit allocation.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2005</td>
<td>14</td>
<td>The SPC, headed by the prime-minister, controls the capital budget process. Operating expenditures are decided by Parliament.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2005</td>
<td>14</td>
<td>No - the SPC regulates all KPC partnerships.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006</td>
<td>12</td>
<td>&quot;To manage and operate oil and gas activities worldwide in a most efficient manner; increase shareholder value; contribute to development of economy and manpower&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>Most affiliates have annual reports, audited by Deloitte &amp; Touche. The Ministry of Oil is the only entity allowed to sanction release of information.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>Difficult to estimate - different affiliates have different metrics. However, as of 2007, metrics have been standardized.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>KPC as well as its affiliates have a wide range of training programs and incentives for employees, future leadership program.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>Some affiliates report specific objectives.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>Are not quantified, yet present for all affiliates (infrastructure, health care, etc.).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>Through its affiliate, Kuwait Foreign Petroleum Exploration Company (KUFPEC), KPC operates in 16 countries: Indonesia, Malaysia, Pakistan, Yemen, Qatar, Syria, Australia, China, Philippines, Tunisia, Egypt, Ivory Coast, Sudan, Algeria, Mauritania. It does not have sole access to country's resources. Affiliates Kuwait Gulf Oil Company (KGOC) and Kuwait Oil Company (KOC) engage in domestic oil and gas E&amp;P with partners. Affiliate Oil Development Company was established in 2005 specifically to engage with IOCs for development of 4 oil fields in northern Kuwait.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006 12</td>
<td>KOC transports and stores oil production for export. Affiliate Kuwait Oil Tanker Company (KOTC) has a fleet of 24 tankers with total deadweight over 3 million tons. Kuwait Aviation Fueling Company specifically handles jet fuel storage and supply.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>Affiliate Kuwait National Petroleum Company (KNPC) operates 3 refineries domestically and the domestic gasoline station network. Retail outlets are both owned and franchised with and ongoing privatization process. Through affiliate Petrochemical Industries Company (PIC), KPC owns 4 plants for production of liquid ammonia, 2 of which operate at present with a total annual capacity of 620,000 metric tons and 3 plants for urea production with a total annual capacity of 104,000 metric tons. Also, KPC established in 1997 two plants for polypropylene with a production capacity of 100,000 tons annually. Kuwait Petroleum International Ltd (KPI) manages downstream refining and marketing interests abroad (the Q8 brand).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>Kuwait Oil Company (KOC) produces domestic natural gas as part of its upstream portfolio. KUFPEC participates in natural gas E&amp;P abroad.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>KOC handles all infrastructure requirements as the country moves to increase production of natural gas, including captured flared gas, and to deploy natural gas for power generation, desalination and other applications.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>3</td>
<td>KOC operates a natural gas processing as part of surface facilities development for natural gas exploitation.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>101%</td>
<td>101%</td>
<td>101%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>-7%</td>
<td>-7%</td>
<td>-7%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>$0.01</td>
<td>$0.01</td>
<td>$0.01</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>706%</td>
<td>706%</td>
<td>706%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>47%</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>149%</td>
<td>149%</td>
<td>149%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>149%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Other Factors | Public Sector Governance | Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives | 2005 11 | "Contributing in the growth and development of the local economy by involving the private sector in certain productive projects of sound feasibility." "Protecting the petroleum resources, exploiting and developing it in accordance with the best method and in a way that secures the growth of the country's resources, increasing its national income and securing the safety of workers, environment and structures in accordance with the provisions of the Amiri Decree delivered on 12th August 1986."
<p>| Other Factors | Public Sector Governance | Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest | | There is a high potential for conflict of interest given the Minister of Oil's presence on the boards of all three major entities: the Supreme Petroleum Council, Ministry of Oil and KPC. There are no apparent controls for avoiding conflict of interest. |
| Other Factors | Public Sector Governance | Based on available information, presence of publicly stated objectives ranked by priority for NOC(s) | 2008 1 | Present |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>None disclosed. While the various affiliates report some non-commercial obligations, the government of Kuwait appears to have the major responsibility for these activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008, 15, 16</td>
<td></td>
<td>Kuwait is not a candidate country for EITI. Petroleum operations are very closely held. National Democratic Institute has operated in Kuwait and Transparency International has an active national chapter.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>S&amp;P: BBB+ (long-term), A-2 (short-term) for KIPCO.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>A legal regime for hydrocarbons is present, but is inadequate.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Foreign companies participate in the upstream with technical service agreements; JVs are used in all other sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>Foreign companies participate in the upstream with service contracts; JVs are used in all other sectors.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2005</td>
<td>14</td>
<td>Most affiliates have a transparent tender process and electronic platform for these purposes, although SPC regulates purchase contracts. A KPC affiliate, Oil Sector Services Company, provides some engineering and services support for the KPC organizations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2005</td>
<td>14</td>
<td>The company is fully vertically and horizontally integrated.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2005</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>2005</td>
<td>14</td>
<td>1%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>2005</td>
<td>14</td>
<td>34%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2005</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>2005</td>
<td>14</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>2005</td>
<td>14</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>2005</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>2005</td>
<td>14</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2005</td>
<td>14</td>
<td>In the form of JV's and service contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2005</td>
<td>14</td>
<td>Foreign companies participate in the upstream with service contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2005</td>
<td>14</td>
<td>Private companies in retail and petrochemicals were launched in 2005. JV's and private participation constitute 30-40%.</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Existing arrangements appear to be successful. Kuwait would like to attract additional partners; witness creation of Oil Development Company for that express purposed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>0%; some affiliates have stock floating on major exchanges. For example, Qurain Petrochemical Industries Company (QPIC) went public in 2005 with 90% free float. 10% is still owned by Petrochemical Industries Company K.S.C (PIC), where KPC owns 100%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008</td>
<td>2</td>
<td>KUFPEC is an international oil company, engaged in exploration and production of crude oil and natural gas outside Kuwait; active in Africa, Middle East, Asia, and Australia; participates in joint ventures with similar companies in E&amp;P of Oil and Gas both as an operator and partner. KPI has downstream operations in Italy, Germany, Sweden, Denmark, Holland, Belgium and Luxemburg (more then 4000 gas stations), the Europoort Refinery in Rotterdam (NL) and refinery in Milazzo (Italy), distribution and sales of gasoline, diesel, jet fuel, lubricants.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>Approx. one-fifth to one-sixth.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>The Ministry of Oil officially provides this function, but shares it with the NOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers</td>
<td>2005</td>
<td>14, 11</td>
<td>New legislation is in place to separate and clarify regulatory oversight, but it is yet to be implemented.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>Regulatory functions are dispersed between SPC, the Ministry and KPC. Thus, independence is nominal.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>Regulatory functions are dispersed between SPC, the Ministry and KPC. Thus, effectiveness is questionable.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>Appears to be funded from the State budget directly, supported by KPC revenue streams.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>Significant - infrastructure, housing etc. Much of this support serves to house the extensive foreign workforce required for all of KPC's operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>2008</td>
<td>1</td>
<td>$3,288.38</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>2008</td>
<td>1</td>
<td>$135.63</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>2008</td>
<td>1</td>
<td>$3,867.17</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Rather detailed reports are provided by KPC and its affiliates, audited by E&amp;Y (IFRS).</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>KPC was established in 1980. The original predecessor - Kuwait National Petroleum Company (KNPC) - was formed in 1960 as a joint venture between the government and private sector.</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Kuwait's economy is almost completely dependent on revenues from its hydrocarbon sector and operations. The country and its companies are recognized for their commercial savvy and construction of international business networks. Kuwait is also recognized as having distinct possibilities with regard to political liberalization. Of interest is whether the close control and opaqueness of Kuwait's hydrocarbons businesses are compatible with apparent (or potential) trends in this regard. Kuwait's indigenous population is small and thus the country has traditional relied on an extensive foreign workforce for its core industries. A number of sensitivities reside around this reality.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>14,587</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>197,924.85</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>108.55</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>79.38%</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>53.63%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>101,500.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>63,001.36</td>
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<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>112,362.30</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>100%</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>90.33%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>99.99%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>583.32%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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### Sources of Information

<table>
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<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
</tr>
</thead>
</table>
### Libya: Libyan National Oil Corporation (LNOC)

#### Summary Report

**Corporate Governance Highlights**

- **Corporate Organization and Ownership**
  - Owned 100% by the State

- **Shares Controlled by Government**
  - 100%

- **Domestic, International Exchanges for Equity Listings**
  - None

- **Board of Directors Structure**
  - Not applicable

- **Independent Board Members**
  - Not applicable

- **Is chairman also minister of energy or otherwise appointed by head of state?**
  - Yes (chairman of the management committee)

**Operations Highlights**

- **Upstream Oil**
  - Operates solely in the country and has sole access to resources. Has several E&P affiliates and manages shares in JV’s.

- **Midstream Oil**
  - Affiliate company exists

- **Downstream Oil**
  - NOC refines about 380,000 B/D of crude; 5 refineries are operated by subsidiary companies. About 60% of production is exported.

- **Upstream Natural Gas**
  - Has several E&P affiliates and manages shares in JV’s

- **Midstream Natural Gas**
  - Affiliates exist

- **Downstream Natural Gas**
  - Ethylene plant with an annual capacity of 1.2 MM tons per year, gas liquefaction plant with an annual operational capacity of 1,565 MMCF/D of natural gas, two ammonia plants with an annual capacity of 733,000 t/year, two methanol plants with an annual capacity of 660,000 t/year, two urea plants with an annual capacity of 916,000 t/year.

**Other**

- No data

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th></th>
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<th>673</th>
<th>946</th>
<th>116</th>
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<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
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<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
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<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
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<tbody>
<tr>
<td>Corporate Governance</td>
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<tr>
<td>Public Sector Governance</td>
<td>57</td>
</tr>
<tr>
<td>Commercialization</td>
<td>66</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>63</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>10</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>30</td>
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<tr>
<td>Local Contribution</td>
<td>61</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>33</td>
</tr>
<tr>
<td>Average</td>
<td>44</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

Libya has been witnessing a spurt in business activities after UN sanctions were lifted in 2003 opening up its substantially unexplored hydrocarbons territory with large oil and gas potential. Libya has very low production costs and the oilfields are close to the refineries and markets of Europe. Investment in Libya's oil infrastructure is very strong, and will support future sector and economic growth at least in the medium term. Improvement in the institutional and regulatory environment will further enhance Libya’s growth and economic diversification opportunities.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>3</td>
<td>The Libyan National Oil Corporation (NOC) was formed on 12 November 1970, under Law No: 24/1970 and represents the State in the oil sector.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>The Libyan National Oil Corporation was formed in 1970 as part of a program of reforms aimed at ensuring that all productive units and workplaces be directly governed by popular congresses. Under its articles of incorporation, NOC was legally restricted to Production sharing agreements (PSA) with international oil companies (IOCs) where the latter assumed all risks associated with exploration. In July 1970, further legislation made NOC responsible for marketing all domestic oil products. The elimination of the Ministry of Energy in 2000 strengthened LNOC’s control over the oil sector. However, the creation in 2006 of the Council for Oil and Gas Affairs (chaired by the Prime Minister alongside the Ministers of Trade, Employment, Industry and Finance, the Central Bank Governor, and the head of LNOC) demonstrated a desire to bring oil policy back into the government sphere.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100 %</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>Only promissory notes</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>No. Management Committee is often reported as the BOD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>The chairman of the Management Committee is appointed by the General People's Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008 10 Management Committee’s power and authority is shared with the General People’s Committee (government) and Council for Oil and Gas Affairs. COGA is in charge of “oversight of the NOC, as well as other aspects of hydrocarbon policy, including the basis for new contracts and pricing, and relations with foreign oil companies”. The General People’s Committee functions as a Council of Ministers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>Both by merit and political appointments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>Low authority; function is shared the General People’s Committee (government) and Council for Oil and Gas Affairs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>1979 4 Unpredictable and inseparable. Salary pool, for example is a separate line in a national budget</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008 3 Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>1979</td>
<td>4</td>
<td>&quot;Conduct exploration, discovery, drilling and production; follow the best methods to maintain oil wealth.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2006, 2007</td>
<td>1, 2</td>
<td>Part of the state budget (employees payroll)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>Unaudited and sporadic</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>2</td>
<td>Adequate according to government sources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>Fuel subsidies are disclosed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td></td>
<td>Operates solely in the country and has sole access to resources. Has several E&amp;P affiliates and manages shares in JV's.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>Affiliate company exists</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>NOC refines about 380,000 B/D of crude; 5 refineries are operated by subsidiary companies. About 60% of production is exported.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td></td>
<td></td>
<td>Has several E&amp;P affiliates and manages shares in JV's</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td></td>
<td>Affiliates exist</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>Ethylene plant with an annual capacity of 1.2 MM tons per year, gas liquefaction plant with an annual operational capacity of 1565 MMCF/D of natural gas, two ammonia plants with an annual capacity of 733,000 t/year, two methanol plants with an annual capacity of 660,000 t/year, two urea plants with an annual capacity of 916,000 t/year.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>153%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$0.85</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$1.29</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>$2.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td>10%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>143%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>1979 4</td>
<td>&quot;NOC supports national economy by means of developing, managing and investing in oil.&quot;</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>Source</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2007</td>
<td>8</td>
<td>“The Council was established by General People's Committee Decision No. 211/2006, giving the Council the role of monitoring, maintaining, developing, and protecting the Libyan oil and gas sector for the benefit of the country, as well as giving it a supervisory role over the NOC with respect to financial, organizational, and other such issues affecting the NOC. This decision was later amended in November 2006 (GPC Decision No. 250/2006), changing the name of the Council, and further clarifying and delineating the role of the NOC by giving it the most flexibility to address concerns over time.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
<td>Present and ranked</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>Low transparency. The Libyan Investment Authority was established in August 2006. It includes the assets of the Libyan Arab Foreign Investment Company, the Libyan African Investment Portfolio, and Oilinvest Company. In addition, excess oil revenues are transferred to the Libyan Investment Authority. The fund invests through a number of external managers.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>Libya is not a candidate country for EITI. No other major transparency programs exist in the country.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007</td>
<td>9</td>
<td>No data on fiscal terms is made publicly available by the government. Industry sources indicate that, in the upstream, LNOC has a 50% working interest fully carried through exploration (in other words, LNOC does not pay for exploration costs). In addition, LNOC, regardless of its production share, pays 50% of development costs. LNOC’s production share varies between 65% and 87.6% - depending on the vintage of the PSC. According to industry sources, the aggressive offers made by some IOCs during the 2006 licensing round (competition from Chinese and Russian companies drove the average production allocation companies to around 14%, with China Petroleum Corp. (SNP) accepting less than 8%) later led to contract termination or renegotiation, as the self imposed harsh terms substantially prevented these companies from fulfilling their contractual obligations. This appears to have been corrected.</td>
</tr>
</tbody>
</table>

<p>| Other Factors      | Fiscal Sustainability | Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings | | | The impact of the fiscal regime on LNOC credit rating is unclear. |</p>
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2007 8</td>
<td>Since the lifting of the sanctions, several reforms have taken place to encourage foreign investment. A significant change relates to foreign ownership of Libyan companies: in July 2006 the General People Council passed decision 18 that provides for the creation of a new type of Libyan company - the Mushtarika - that allows foreigners to participate in up to 65 percent of the share capital (the oil Joint Stock Company limited foreign capital to 49%). Furthermore, the board of directors may be comprised of a majority of foreign directors. Amendments to the Foreign Investment Law reduced the minimum start-up capital for foreign investors and introduced the ability to borrow at least half of the capital from Libyan banks. This paved the way for smaller investors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>PETROLEUM LAW NO. 25 OF 1955 AS AMENDED THROUGH 12 FEBRUARY 1970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>PSAs mostly. Very active in recent years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>PSAs mostly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Vertical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>JV's and PSAs are used.</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>1979 4</td>
<td></td>
<td>Very active license tenders after opening of the sector in 2005 – still booming.; current NOC participation level is no less than 51%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>1979 4</td>
<td></td>
<td>Very low, not less than 51%. This is a current LNOC participation level.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Successful, JVs account for about 40% of domestic production.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>Libya has operations (mainly distribution of refined products) in Italy, Germany, Switzerland, and Egypt through its overseas subsidiary, Tamoil.</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>Does not exist</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>Significant and funded through LNOC's revenue contributions.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$76.67</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Very limited and unaudited.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>-------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td></td>
<td>Established in 1970 and likely to persist.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2008</td>
<td>7</td>
<td>Libya has been witnessing a spurt in business activities after UN sanctions were lifted in 2003 opening up its substantially unexplored hydrocarbons territory with large oil and gas potential. Libya has very low production costs and the oilfields are close to the refineries and markets of Europe. Investment in Libya’s oil infrastructure is very strong, and will support future sector and economic growth at least in the medium term. Improvement in the institutional and regulatory environment will further enhance Libya’s growth and economic diversification opportunities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td></td>
<td>436,585</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td></td>
<td>2,183</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td></td>
<td>65.93</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>87.43%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>70.06%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>41,464.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td></td>
<td>52,795.42</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>50,566.66</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>82.00%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.99%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>557.04%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<td>Yes</td>
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**Sources of Information**

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<th>Source Description</th>
<th>Links</th>
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<tr>
<td>8</td>
<td>2007</td>
<td>Libya: Recent Developments Impacting Foreign Investment</td>
<td><a href="http://www.bilateralchamber.org/pdfs/Ferasarticle.pdf">www.bilateralchamber.org/pdfs/Ferasarticle.pdf</a></td>
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<td>9</td>
<td>2007</td>
<td>Rigzone news</td>
<td>[<a href="http://reports.rigzone.com/ReportServer?%2fRigzone%2fRZNewsArticle%3aCommand=Render%3aformat=PDF%3aparam%2fArticle">http://reports.rigzone.com/ReportServer?%2fRigzone%2fRZNewsArticle%3aCommand=Render%3aformat=PDF%3aparam%2fArticle</a> ID=42515](<a href="http://reports.rigzone.com/ReportServer?%2fRigzone%2fRZNewsArticle%3aCommand=Render%3aformat=PDF%3aparam%2fArticle">http://reports.rigzone.com/ReportServer?%2fRigzone%2fRZNewsArticle%3aCommand=Render%3aformat=PDF%3aparam%2fArticle</a> ID=42515)</td>
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### Corporate Governance Highlights

**Corporate Organization and Ownership**

In 1974 the Government of Oman acquired a 60% shareholding in PDO, the remaining interest in the Company being shared amongst Royal Dutch Shell (34%), Total (4%) and the Partex Corporation (2%). On 1 January 1980 PDO was registered by Royal Decree as a limited liability company in the Sultanate. The company is controlled by the state through Oman’s oil ministry.

**Shares Controlled by Government**

60%

**Domestic, International Exchanges for Equity Listings**

No

**Board of Directors Structure**

The Board consists of twelve members; seven “including the Chairman, who is the Minister of Oil & Gas His Excellency Dr. Mohammed bin Hamad al Rumhy” represent the Government of Oman, and five represent PDO’s private shareholders (Royal Dutch Shell, Total and Partex).

**Independent Board Members**

No

**Is chairman also minister of energy or otherwise appointed by head of state?**

Yes, Minister of Oil & Gas.

### Operations Highlights

**Upstream Oil**

Operates in the country. Does not have sole access to resources.

**Midstream Oil**

Operates pipelines

**Downstream Oil**

Does not operate

**Upstream Natural Gas**

Does not operate

**Midstream Natural Gas**

Operates pipelines

**Downstream Natural Gas**

Does not operate

**Other**

Does not operate

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Operations Performance Highlights</th>
<th>2004-2007</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
<td>891</td>
<td></td>
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<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
<td>No data</td>
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<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
<td>No data</td>
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### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Financial Performance Highlights</th>
<th>2004-2007</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues ($Millions)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Consolidated Average Total Assets ($Millions)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
<td>No data</td>
<td></td>
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</table>
Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
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<tbody>
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<td>Corporate Governance</td>
<td>53</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>59</td>
</tr>
<tr>
<td>Commercialization</td>
<td>50</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>38</td>
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<tr>
<td>Resource Endowment</td>
<td>2</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>53</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>80</td>
</tr>
<tr>
<td>Average</td>
<td>42</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Oman is strongly dependent upon its petro-economy for national development. With declining production, the government is attempting to spur new investment, including frontier resource (enhanced oil recovery and other) and seek ways of diversifying the economic base.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>Petroleum Development Oman (PDO) is one of 4 NOCs in Oman.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1</td>
<td>In 1974 the Government of Oman acquired a 60% shareholding in PDO, the remaining interest in the Company being shared amongst Royal Dutch Shell (34%), Total (4%) and the Partex Corporation (2%). On 1 January 1980 PDO was registered by Royal Decree as a limited liability company in the Sultanate. The company is controlled by the state through Oman’s oil ministry.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>1</td>
<td>60%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>2</td>
<td>The Board consists of twelve members; seven “including the Chairman, who is the Minister of Oil &amp; Gas His Excellency Dr. Mohammed bin Hamad al Rumhy” represent the Government of Oman, and five represent PDO’s private shareholders (Royal Dutch Shell, Total and Partex).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>1</td>
<td>Yes, Minister of Oil &amp; Gas.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
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<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td>2</td>
<td>Board of Directors provides objectives and guidelines to the Managing Director.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>Has to consult with the Ministry</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2008</td>
<td>1</td>
<td>Competitive basis.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>Has to be approved by the Ministry</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>Has to be approved by the Ministry</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>2</td>
<td>&quot;The objective of PDO is to engage efficiently, responsibly and safely in the exploration, production, development, storage and transportation of hydrocarbons in the Sultanate of Oman. The Company seeks a high standard of performance with the aim to further the long term benefits of its Shareholders, its Employees and the society of the Sultanate of Oman at large.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>Appears to be approved by the Ministry</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>Does not disclose</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008 1</td>
<td></td>
<td>Specialist learning events and imported learning programmes. The Chairman’s Award for Excellence.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008 1, 2</td>
<td></td>
<td>Detailed reporting on social performance in % but not in monetary terms: community grants, healthcare, educational, sports and general. &quot;A total of 11 Memoranda of Understanding (MoUs), whose combined value amounts to more than RO 1.7 million, were signed with various Government ministries for a range of social-investment initiatives&quot; (for 2007; RO 1.5 for 2006).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008 1</td>
<td></td>
<td>Some, not very extensive.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>No data</td>
<td></td>
<td>The company operates solely in the country; and does not have sole access to resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>Operates pipelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>Does not operate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>Does not operate</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>Operates pipelines</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>Does not operate</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>Does not operate</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>No data</td>
<td></td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>20%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>$6.11</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>$0.55</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>No data</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>Yes. See mission statement above.</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>Absent</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>Establishment in 1980, the State General Reserve Fund of the Sultanate of Oman was established to manage hydrocarbon resources in excess of budgetary needs. The transfers to the budget are discretionary. The holdings and operations of the Fund are not publicly disclosed. The Oman Oil Fund was created in 1993 to invest in the oil sector. It is managed by the Ministry of Finance. Its holdings and operations are not publicly disclosed.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>Oman is not a candidate country for EITI nor do they support the effort. No other major transparency program operates in the country.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td>Oman oil production has declined in recent years. The resource endowment is relatively small and more challenging to develop compared to Oman’s peer group, but insufficient capital may be available for new investment, either through PDO or IOCs as a consequence of the fiscal regime.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>None apparent</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>PSAs</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>PSAs</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>100% outsourced. “In 1998 PDO launched the Local Community Contractors (LCC) initiative to give people living in the Company’s concession area opportunities to establish their own companies, which could then provide services to PDO.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Pure upstream</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007</td>
<td>5</td>
<td>Several foreign companies are also involved in upstream activities, with Occidental Petroleum holding the largest market share.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Several foreign companies are also involved in upstream activities, with Occidental Petroleum holding the largest market share.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Very little, if any</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>40</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>PDO only operates in its core businesses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>The Ministry of Oil and Gas</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>To a certain extent by private shareholders</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>No data</td>
<td>No data is available, but fuel subsidies almost certainly provided with support from PDO and other NOC revenue streams as well as associated transfers for loss coverage.</td>
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<tr>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>Detailed reporting on social performance in % but not in monetary terms: community grants, healthcare, educational, sports and general. &quot;A total of 11 Memoranda of Understanding (MoUs), whose combined value amounts to more than RO 1.7 million, were signed with various Government ministries for a range of social-investment initiatives&quot; (for 2007; RO 1.5 for 2006).</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
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<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>Almost no audited/unaudited data is publicly available.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>2 In existence since 1925 with State participation beginning in 1974.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Oman is strongly dependent upon its petro-economy for national development. With declining production, the government is attempting to spur new investment, including frontier resource (enhanced oil recovery and other) and seek ways of diversifying the economic base.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>4,086</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>262,900</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>23.91</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>5,572.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>24,367.12</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>9,773.23</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>0.57</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>1.00</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>5.32</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>2008</td>
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<td><a href="http://wwwpdo.co.ompdowebtabid161Default.aspx">http://wwwpdo.co.ompdowebtabid161Default.aspx</a></td>
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<td>2</td>
<td>2008</td>
<td>Petroleum Development Oman</td>
<td><a href="http://wwwpdo.co.om">http://wwwpdo.co.om</a></td>
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<td>2006</td>
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<td>AR2004</td>
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<td>5</td>
<td>2007</td>
<td>USEIA Country Analysis Brief -</td>
<td><a href="http://www.eia.doe.govemuecabsOmanBackground.html">http://www.eia.doe.govemuecabsOmanBackground.html</a></td>
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**Qatar: Qatar Petroleum (QP)**

### Summary Report

<table>
<thead>
<tr>
<th><strong>Corporate Governance Highlights</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Organization and Ownership</strong></td>
</tr>
<tr>
<td>Qatar Petroleum (QP) is a state-owned corporation, formed by Emiri Decree No 10, in 1974. QP is engaged in all sectors of oil and gas industry in the country.</td>
</tr>
<tr>
<td><strong>Shares Controlled by Government</strong></td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td><strong>Domestic, International Exchanges for Equity Listings</strong></td>
</tr>
<tr>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Board of Directors Structure</strong></td>
</tr>
<tr>
<td>7 members</td>
</tr>
<tr>
<td><strong>Independent Board Members</strong></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td><strong>Is chairman also minister of energy or otherwise appointed by head of state?</strong></td>
</tr>
<tr>
<td>Yes</td>
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</table>

### Operations Highlights

<table>
<thead>
<tr>
<th><strong>Upstream Oil</strong></th>
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</thead>
<tbody>
<tr>
<td>Solely in the country. QP has sole access to resources.</td>
</tr>
<tr>
<td><strong>Midstream Oil</strong></td>
</tr>
<tr>
<td>Operates exclusively</td>
</tr>
<tr>
<td><strong>Downstream Oil</strong></td>
</tr>
<tr>
<td>Operates exclusively</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Upstream Natural Gas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>North Field; the Dolphin Project will supply the UAE and Oman with 2 billion cubic feet per day of North Field gas after processing at Dolphin’s dedicated new plant at Ras Laffan Industrial City. The resulting lean natural gas will then be transported by a 48 inch, 370 km long undersea pipeline.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Midstream Natural Gas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG - 25 million tons per year; Qatar Gas Transport Company (Nakilat); GTL plant - 34,000 barrels per day; network of over 2000km long pipelines, associated manifolds and distribution stations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Downstream Natural Gas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>QAPCO's facilities consist of an ethylene plant producing 525,000 metric tons per annum (MTPA), two low density polyethylene (LDPE) plants with 360,000 MTPA and a sulfur plant with 70,000 MTPA (QP owns 80%). QAFAC plant is designed to produce 832,500 MTPA of methanol and 610,000 TPA of MTBE (QP 50%).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>QAFCO total annual production capacity now is 2.0 MMT of ammonia and 2.8 MMT of urea (QP owns 75%); steel company.</td>
</tr>
</tbody>
</table>

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
</tr>
<tr>
<td>325</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
</tr>
<tr>
<td>1,571</td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
</tr>
<tr>
<td>50</td>
</tr>
</tbody>
</table>
### Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>17,765</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>24,761</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>14,916</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>5,145</td>
</tr>
</tbody>
</table>

### Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>66</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>62</td>
</tr>
<tr>
<td>Commercialization</td>
<td>58</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>100</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>34</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>38</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>46</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>39</td>
</tr>
<tr>
<td>Average</td>
<td>60</td>
</tr>
</tbody>
</table>

### Worldwide Governance Indicators

#### Trends and Issues

Qatar has been the dominant new entrant to the global LNG industry, enjoying a privileged position with respect to inbound investment flows, project financing leverage and international partnerships. In recent years, the Qatari government has postponed additional new investment because of the difficulties managing the large cash flows relative to the country’s small population. A number of nation-building activities are underway. In spite of the restrictions imposed on foreign participation in the hydrocarbon sector, the government has been successful in attracting investors. Further liberalization may be possible.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Qatar Petroleum (QP) the sole NOC in the country.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>Qatar Petroleum (QP) is a state-owned corporation, established by Emiri Decree No 10, in 1974. QP is engaged in all sectors of oil and gas industry in the country.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>1</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>4</td>
<td>Ras Laffan LNG – First Mortgage Bonds, Moody’s Aa2</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2006</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>7 members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2006</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
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<td>-----------------------</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>“Our mission is to ensure the State gets maximum benefit from its petroleum resources by engaging directly or indirectly in all activities that would add value to these resources.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>2</td>
<td>Audited by D&amp;T, IFRS</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008</td>
<td>1</td>
<td>Several initiatives were made for the enhanced service delivery in Doha and locations for recruitment of nationals and non-nationals, Qatari development, staff appraisal, compensation, job analysis and evaluation, policy development, employee grievance and disciplinary process and employee record management system.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>General description of selected projects</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
<td></td>
</tr>
<tr>
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<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006 2 Solely in the country. Has sole access to resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2006 2 No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2006 2 Operates exclusively</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2006 2 Operates exclusively</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006 2 North Field; the Dolphin Project will supply the UAE and Oman with 2 billion cubic feet per day of North Field gas after processing at Dolphin’s dedicated new plant at Ras Laffan Industrial City. The resulting lean natural gas will then be transported by a 48 inch, 370 km long undersea pipeline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006 2 LNG - 25 million tons per year; Qatar Gas Transport Company (Nakilat); GTL plant - 34,000 barrels per day; network of over 2000km long pipelines, associated manifolds and distribution stations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006 2 QAPCO’s facilities consist of an ethylene plant producing 525,000 metric tons per annum (TPA), two low density polyethylene (LDPE) plants with 360,000 MTPA and a sulfur plant with 70,000 TPA (QP owns 80%). QAFAC plant is designed to produce 832,500 TPA of methanol and 610,000 TPA of MTBE (QP 50%).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006 2 QAFCO total annual production capacity now is 2.0 MMT of ammonia and 2.8 MMT of urea (QP owns 75%); steel company.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>2006 2 No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>2006 2 No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>142.12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
</tr>
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<td>----------------------------------------</td>
<td>------------------------------------</td>
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<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>83.96%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>28.96%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>63.91%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>142.12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>49.95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>20.78%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>23.75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>53.65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>5</td>
<td>&quot;Building solid industrial foundations to achieve balanced economic growth apart from oil revenues, as a single income source, and substitution of industrial products imports.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Other Factors | Public Sector Governance | Based on available information, presence of publicly stated objectives ranked by priority for NOC(s) | 2008 | 1 | "Our overall objective is to maximize our contribution to the national wealth of the State of Qatar, through the safe, efficient and environmentally acceptable exploitation of Qatar's hydrocarbon reserves and through related activities. Specifically we seek: To provide the state with a reliable cash flow, of maximum value, from diversified business interests; To build an organization with internationally competitive business and technical expertise; To maximize the employment of capable Qatari
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2006</td>
<td>2 Absent</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>8 The Qatar Investment Authority is a sovereign wealth fund created to manage excess oil and natural gas revenue. “The QIA was founded by the State of Qatar in 2005 to strengthen the country's economy by diversifying into new asset classes. Building on the heritage of Qatar investments dating back more than three decades, its growing portfolio of long-term strategic investments help complement the state's huge wealth in natural resources.” The holdings and operations of the QIA are not publicly disclosed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>6 Qatar is neither a candidate country nor supporter of EITI. National Democratic Institute operates in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>4 E&amp;P AA-, Moody’s Aa2</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>Qatar has enjoyed prominence for the large investment flows related to natural gas/LNG development, a consequence of resource endowment, negotiated terms, and achievement of investment grade ratings for project financings.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007 3</td>
<td>QP cooperates with foreign companies through production sharing contracts (PSAs) (QP typically takes a majority stake, although this practice could be abandoned in some cases).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2006 2</td>
<td>&quot;Qatar Petroleum’s strategy of conducting hydrocarbon exploration and new projects is through Exploration and Production Sharing Agreements (EPSA) and Development and Production Sharing Agreements (DPSA) concluded with major international oil and gas companies.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>Not available</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Vertically integrated</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes, taking LNG value chain positions.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>PSAs</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>QP cooperates with foreign companies through production sharing contracts (PSAs) (QP typically takes a majority stake, although this practice could be abandoned in some cases).</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>None</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>Brief Description</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>Not applicable</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2006  2 Cities, infrastructure, steel</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>Regulatory function is shared between the Ministry of Energy and Industry and QP</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government, brief description of subsidy program, approach, cost</td>
<td>The government of Qatar subsidizes many basic necessities financed through the country's huge hydrocarbon export revenues.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>Appears to be significant</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$2,476.11</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$1,776.54</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Data is fragmented and mostly unavailable</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>In existence since 1958 and unlikely to disappear.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Qatar has been the dominant new entrant to the global LNG industry, enjoying a privileged position with respect to inbound investment flows, project financing leverage and international partnerships. In recent years, the Qatari government has postponed additional new investment because of the difficulties managing the large cash flows relative to the small population. A number of nation-building activities have been underway. In spite of the closely held nature of the hydrocarbon sector, indications are that the Qatar government is receptive to some</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>Sociopolitical...</td>
<td></td>
<td></td>
<td></td>
<td>sociopolitical liberalization.</td>
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<td>Other Factors</td>
<td>Non-commercial...</td>
<td>Number of...</td>
<td>10,000</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial...</td>
<td>BOE production...</td>
<td>64,554.03</td>
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<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>200</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas...</td>
<td>80.89%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and...</td>
<td>62.32%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>8,073.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>904,055.36</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>183,307.81</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or...</td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>14.97%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.92%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE... as % of total country BOE consumption</td>
<td>502.42%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>Yes</td>
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### Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
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<tr>
<td>1</td>
<td>2008</td>
<td>Company web-site</td>
<td><a href="http://www">http://www</a> qp com qa</td>
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<tr>
<td>2</td>
<td>2006</td>
<td>AR2005</td>
<td><a href="http://www">http://www</a> qp com qa/qp nsf/web/md annual reports</td>
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<td>3</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Qatar</td>
<td><a href="http://www">http://www</a> eia doe gov/emeu/cabs/Qatar/Background.html</td>
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<td>4</td>
<td>2008</td>
<td>Middle East Economic Survey</td>
<td><a href="http://www">http://www</a> mees com/Energy_Tables/ratings htm</td>
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<td>7</td>
<td>2008</td>
<td>Zawya Middle East Business Info</td>
<td><a href="http://www">http://www</a> zawya com/cn/profile.cfm/cid897367</td>
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<td>8</td>
<td>2008</td>
<td>Qatar Investment Authority</td>
<td><a href="http://www">http://www</a> qia qa/QIA/index.html</td>
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</tbody>
</table>
### Corporate Governance Highlights

**Corporate Organization and Ownership**
Established in Saudi Arabia, 100% government owned.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
Twelve members. Chairman of BOD is the Minister of Petroleum & Mineral Resources. BOD also includes the CEO of Saudi Aramco and 3 other Aramco officers. Five members have positions in the Saudi government (such as the Ministry of Finance, Supreme Economic Council, etc.). Three members are independent.

**Independent Board Members**
Three independent members; appointment process No data. In 2004, Al-Naimi said an independent BOD selected by merit and professional expertise was important for NOC governance.

**Is chairman also minister of energy or otherwise appointed by head of state?**
Yes, Minister of Petroleum & Mineral Resources.

### Operations Highlights

**Upstream Oil**
Aramco's upstream operations are in Saudi Arabia only. It has sole access to oil resources.

**Midstream Oil**
Midstream assets include 9,000+ miles oil pipelines, 14.1 million B/D export terminal capacity and one of world's largest fleets of supertankers including 20 VLCCs operated by Aramco.

**Downstream Oil**
Downstream assets include 2.1 million B/D refining capacity in Saudi Arabia and 1.75 million B/D overseas; new petrochemical facilities are under construction.

**Upstream Natural Gas**
For development of non-associated gas Aramco participates with foreign companies in consortiums.

**Midstream Natural Gas**
Midstream natural gas assets include 7 gas processing plants with 8 BCF/D capacity. Produces NGLs and sulfur. Has 1,400 miles gas pipeline with expansions in process.

**Downstream Natural Gas**
Has a 7.8 MMCF/D Master Gas System distribution network.

**Other**
Electricity sector is the purview of state-owned Saudi Electricity Co. (SEC). Future water and power projects funded 60% by private sector, 20% by Public Investment Fund and 20% by SEC. $8 billion in investment for 4 projects approved with 7,000 MW plus power capacity. In 2006, 2,500 MW new generation capacity tendered by SEC to IPPs. Aramco is constructing cogeneration plants at oil and gas installations throughout the country.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>259,800</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>241,667</td>
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<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>3,237</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>2,853</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>583</td>
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</tbody>
</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>56</td>
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<tr>
<td>Public Sector Governance</td>
<td>57</td>
</tr>
<tr>
<td>Commercialization</td>
<td>67</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>88</td>
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<tr>
<td>Resource Endowment</td>
<td>58</td>
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<tr>
<td>Oil Dependency</td>
<td>46</td>
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<tr>
<td>Local Contribution</td>
<td>0</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>34</td>
</tr>
<tr>
<td>Average</td>
<td>62</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Aramco has an $18 billion plan to increase crude oil production capacity to 12 million B/D by 2009. Aramco development plans call for a $20 billion investment in refining capacity, increasing domestic capacity to 3 million B/D and international holdings by 1-2 million B/D by 2011. Aramco plans a $9 billion investment in natural gas in order to free up oil for export. Gas production is earmarked for use domestically. Gas processing capacity will be expanded from 8 to 15 BCF/D by 2009. Expansion of the Master Gas System is in progress.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>10</td>
<td>One NOC, Saudi Aramco, with multiple subsidiaries/associated companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>10</td>
<td>Saudi Aramco has 9 subsidiary or associated companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>10</td>
<td>Established in Saudi Arabia, 100% government owned.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>10</td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>12</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>12</td>
<td>Twelve members. Chairman of BOD is the Minister of Petroleum &amp; Mineral Resources. BOD also includes the CEO of Saudi Aramco and 3 other Aramco officers. Five members have positions in the Saudi government (such as the Ministry of Finance, Supreme Economic Council, etc.). Three members are independent.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>12</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007, 2008, 2008</td>
<td>12, 14</td>
<td>Three independent members; appointment process No data. In 2004, Al-Naimi said an independent BOD selected by merit and professional expertise was important for NOC governance.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007, 2008, 2008</td>
<td>12</td>
<td>High level planning, budgeting and project decisions.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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<td>-------------------</td>
<td>-----------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008</td>
<td>13, 16</td>
<td>Supreme Council for Petroleum &amp; Mineral Affairs (SCPMA) has the ultimate authority over planning, strategies, policy, budgets and projects for Aramco. However, the Ministry of Petroleum &amp; Mineral Resources says that the BOD is the primary channel between the government and Aramco and that the SCPMA plays a secondary role with respect to Aramco and a primary role in the country's petroleum plans.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2007, 2008</td>
<td>12, 13</td>
<td>Aramco establishes its budget subject to the &quot;endorsement&quot; of SCPMA.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2007, 2008</td>
<td>12, 13</td>
<td>Budget is subject to the &quot;endorsement&quot; of SCPMA.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007, 2008</td>
<td>12, 13</td>
<td>Yes, subject to the participation of SCPMA in negotiations with international oil companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006</td>
<td>15</td>
<td>Yes. Elements include: operating in the hydrocarbon sector on a commercial basis and for the purpose of profit; developing the local economy and increasing its contribution to the Kingdom's revenues; providing reliable, stable energy supplies to global markets.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2004</td>
<td>14</td>
<td>Aramco has formal planning processes that include establishing detailed operating plans for the coming year, for the next five years and scenario planning that spans decades. Reservoir management and production strategies have a 50+ year timeline. In 2004, Al-Naimi said, &quot;the fiscal regime for the NOC allows for net cash flow retention adequate to meet its objectives and plan over a reasonable time horizon.&quot;</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<tr>
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<td>----------------------------------------------------------------------------------</td>
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<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008</td>
<td>13</td>
<td>SCPMA appoints a financial auditor and reviews the auditor's reports but there is no public disclosure.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2007</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>12,15</td>
<td>Aramco has extensive education and employee development programs in science, technology and management. Heavily emphasized and reported on in company publications.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2007</td>
<td>12,4</td>
<td>In its Annual Review, Aramco provides qualitative information on social/economic development activities including traffic safety, recycling, subsidized home loans, school construction, renovation and maintenance, school supplies, health care access and diabetes prevention. Price subsidies not disclosed by Aramco but other sources indicate they are significant.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2007</td>
<td>12, 4</td>
<td>See above.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>12, 16</td>
<td>Aramco's upstream operations are in Saudi Arabia only. It has sole access to oil resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>12, 16</td>
<td>Yes, in refining, oil product distribution and oil pipelines.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007</td>
<td>12, 4</td>
<td>Midstream assets include 9,000+ miles oil pipelines, 14.1 million B/D export terminal capacity and one of world's largest fleets of supertankers including 20 Very Large Crude Carriers (VLCCs) operated by Aramco.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007, 2008</td>
<td>16, 4</td>
<td>Downstream assets include 2.1 million B/D refining capacity in Saudi Arabia and 1.75 million B/D overseas; new petrochemical facilities are under construction.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007, 2008</td>
<td>12, 16, 4</td>
<td>For development of non-associated gas Aramco participates with foreign</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007 4</td>
<td>Midstream natural gas assets include 7 gas processing plants with 8 BCF/D capacity. Produces NGLs and sulfur. Has 1,400 miles gas pipeline with expansions in process.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2007 4</td>
<td>Electricity sector is the purview of state-owned Saudi Electricity Co. (SEC). Future water and power projects funded 60% by private sector, 20% by Public Investment Fund and 20% by SEC. $8 billion in investment for 4 projects approved with 7,000 MW plus power capacity. In 2006, 2,500 MW new generation capacity tendered by SEC to IPPs. Aramco is constructing cogeneration plants at oil and gas installations throughout the country.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td>126%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>32%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>17</td>
<td>Expand energy intensive industries such as petrochemicals and contribute to establishing other industries such as electricity, water desalination and energy-intensive heavy industries. Manufacture aluminum and fertilizers. Decrease the economy's dependence on oil by encouraging other productive sectors and implementing required reforms.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>16, 17, 18</td>
<td>Commercial functions reside with Aramco and other permitted participants in the hydrocarbon sector subject to the review of SCPMA. Policy and regulatory functions are not separated and reside primarily in the SCPMA and to a lesser extent in the Ministry of Petroleum and Minerals (licenses and regulations).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2006, 2008</td>
<td>15, 16, 17</td>
<td>Yes. Elements include: operating in the hydrocarbon sector on a commercial basis and for the purpose of profit; developing the local economy and increasing its contribution to the Kingdom's revenues; providing reliable, stable energy supplies to global markets.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>None disclosed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>20, 21</td>
<td>“The Public Investment Fund (PIF) was established by Royal Decree No. (M/24), dated 25-6-1391H. The motive behind the establishment of PIF was to provide financing for certain productive projects that are of a commercial nature and are having a significant importance in developing the national economy, which the private sector lacks as the ability to under take alone, either because of insufficient experience or inadequate capital or both.” Saudi Arabian Monetary Agency appears to be responsible for investing the larger share of the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Excess Oil &amp; Gas Revenue</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td></td>
<td>Saudi Arabia is not a candidate country for EITI. No other transparency programs appear to operate in the Kingdom.</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td></td>
<td>No data, NOCs unrated.</td>
</tr>
<tr>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2000, 2007, 2008</td>
<td>4, 16-19</td>
<td></td>
<td>Yes, but only in the non-associated gas upstream sector. 4 major Aramco consortiums including Shell, Total, Lukoil, Sinopec, ENI, Repsol.</td>
</tr>
<tr>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2008</td>
<td>16, 17</td>
<td></td>
<td>Arrangements for participation in the non-associated gas sector are through the establishment of joint venture companies where Aramco has 20-30% equity interests.</td>
</tr>
<tr>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2008</td>
<td>16, 17</td>
<td></td>
<td>Aramco is fully-integrated in the upstream, midstream and downstream sectors.</td>
</tr>
<tr>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2008</td>
<td>16, 17</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
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<td>--------------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>131%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Saudi Arabia: Saudi Aramco**

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Source Response</th>
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</thead>
<tbody>
<tr>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes, but only in the non-associated gas upstream sector. See above.</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td>2008</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
</tr>
</tbody>
</table>

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**Other Factors**

- Commercialization:
  - Competition level in upstream, midstream, downstream sectors: See above. There are non-Aramco participants in: refining, petrochemicals and product marketing such as Shell, ExxonMobil, Sumitomo Chemical. Except for the petrochemical venture with Sumitomo, the others have an Aramco executive as President and CEO and 80-85% of the workforce is Saudi.
  - Competition level in midstream and downstream sectors: See above.
  - Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures: There are numerous Aramco/non-NOC joint ventures in upstream non-associated gas, refining, product marketing and petrochemicals as described above.
<table>
<thead>
<tr>
<th>Indicator Category</th>
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<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>None. No plans in process.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008</td>
<td>16, 17</td>
<td>Aramco has four international refining and marketing joint ventures in the US, South Korea, Philippines and Greece. Aramco also has a 15% interest in the Arab Pipeline Company (crude oil pipeline).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2007</td>
<td>12</td>
<td>No data: appear extensive but qualitative disclosures only.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2000, 2008</td>
<td>16, 17, 18</td>
<td>The Ministry of Petroleum and Minerals appears to have regulatory responsibilities but some observers view its role as advisory only. There are no other regulatory agencies.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007</td>
<td>4</td>
<td>Significant price subsidies are attributed to Saudi Arabia but quantitative information is not available.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of</td>
<td>2007</td>
<td>12</td>
<td>No data; qualitative disclosure only.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
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<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Very limited data provided but reliability is generally good. No operating/financial performance data available.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>The Saudi government acquired a 25% interest in Aramco in 1973 and in 1980 purchased almost all of its assets giving it 100% ownership.</td>
<td></td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Aramco has an $18 billion plan to increase crude oil production capacity to 12 million B/D by 2009. Aramco development plans call for a $20 billion investment in refining capacity, increasing domestic capacity to 3 million B/D and international holdings by 1-2 million B/D by 2011. Aramco plans a $9 billion investment in natural gas in order to free up oil for export. Gas production is earmarked for use domestically. Gas processing capacity will be expanded from 8 to 15 BCF/D by 2009. Expansion of the Master Gas System is in progress.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>51,906</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>83,070</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>72.21</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>86.84%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>54.07%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>264,209.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>253,029.56</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>307,834.79</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
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<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>71%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>85.83%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.99%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>341.52%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<td>Yes</td>
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### Sources of Information

<table>
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<td></td>
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<td>proved reserves; it reports &quot;recoverable&quot; reserves</td>
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<tr>
<td>2</td>
<td>2008</td>
<td>CEE Estimate based on following formula: Reserve Additions Year 2=EOY Recoverable</td>
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<td>Reserves Year 2-(EOY Reserves Year 1-Production Year 2)</td>
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<td>3</td>
<td>2007</td>
<td>Exports include crude oil but not natural gas liquids. Saudi Aramco Facts and</td>
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<td></td>
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<td>Figures 2006</td>
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<td>2007</td>
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<td>9</td>
<td>2008</td>
<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
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<td></td>
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<td>Economic and Energy Relations,&quot; Speech at the OPEC International Seminar, Vienna,</td>
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<td></td>
<td></td>
<td>Austria, 9/16/04</td>
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<td></td>
<td></td>
<td>10/11/07</td>
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<tr>
<td>17</td>
<td>2008</td>
<td>&quot;The Role of Oil and Gas in the National Economy&quot;</td>
<td><a href="http://www.mopm.gov.sa">www.mopm.gov.sa</a></td>
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<td>18</td>
<td>2000</td>
<td>&quot;The Oil Market, the Middle East and Saudi Policy,&quot; Policy Watch #449, Special</td>
<td><a href="http://www.thewashingtoninstitute.com">www.thewashingtoninstitute.com</a></td>
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<td>Forum Report, 4/5/00</td>
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<td></td>
<td>Faisal Bin Turki Bain Abdul Aziz Al-Sa'ud, World Petroleum Congress, 6/13/00</td>
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</table>
Syria: Syrian Petroleum Company (SPC)

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership

The Syrian Petroleum Co. is an arm of the Ministry of Petroleum and Mineral Resources. Al-Furat is a joint venture. The Syrian government is the sole owner of all companies except Al-Furat where their interest is undisclosed. Al-Furat is a Syrian joint stock company with a service contract for production operations.

Shares Controlled by Government

100%.

Domestic, International Exchanges for Equity Listings

None

Board of Directors Structure

No data

Independent Board Members

No data

Is chairman also minister of energy or otherwise appointed by head of state?

No data

Operations Highlights

Upstream Oil

SPC operates only in Syria. Syria has tendered exploration blocks to private and foreign companies with production sharing agreements which include the participation of SPC and the government. It also has the Al-Furat joint venture which is focused on oil production operations pursuant to a service contract.

Midstream Oil

SPC assets include a 250,000 B/D oil pipeline; most oil transported by trucks and tankers.

Downstream Oil

SPC operates two refineries at Baniyas (132,725 B/D) and Homs (107,140 B/D) which produce a surplus of heavier products, including fuel oil, but fail to meet demand for lighter products such as distillates. The Syrian Company for Distribution of Petroleum Products markets oil products and controls the majority of gasoline retail outlets. Sytrol markets oil products including exports. There is a substantial black market in the resale of smuggled subsidized Syrian petroleum products to other countries, principally Iraq.

Upstream Natural Gas

75% of gas reserves in Syria are owned by Syrian Gas Company. 50% of reserves are non-associated gas. Two finds were reported in 2006/2007 totaling 2 TCF but reserves are unconfirmed, development plans unannounced. Marathon Oil and Soyuzneftegas have gas projects totaling $977 million in investment.

Midstream Natural Gas

SPC has 1,250 miles of domestic gas pipelines and 5 gas processing plants with 1.1 BCF/D capacity. The 53 MMCF/D Syria-Lebanon pipeline is not operating. Several export/import gas pipeline projects have been announced. Syria wants to be a regional gas hub and transit country bringing gas to Europe.

Downstream Natural Gas

None disclosed.

Other

SPC does not operate in the Syrian power sector. Installed generation capacity in Syria is 6.5 GW. There are 11 natural gas and fuel oil thermal plants and one 1.5 GW hydroelectric facility. Syria wants to replace fuel oil generation with natural gas by 2014; currently 50% of generation is from gas. Prices are subsidized resulting in 7% p.a. demand growth. The sector is open to independent power plant project developers; 3 gas-fired IPPs are underway totaling 1,950 MW. Financing is provided by Europe and Arab funds.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>2,925</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>9,796</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>161</td>
</tr>
</tbody>
</table>
Syria: Syrian Petroleum Company (SPC)

**Upstream: Average Annual Natural Gas Production (BCF)**

183

**Downstream: Average Annual Refinery Production (MM Barrels)**

31

**Financial Performance Highlights (2004-2007; not all years or data reported)**

- **Consolidated Average Total Revenues ($Millions)**: No data
- **Consolidated Average Total Assets ($Millions)**: No data
- **Consolidated Average EBIT ($Millions)**: No data
- **Consolidated Average Net Income ($Millions)**: No data

**Categorization Indicators**

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<td>Public Sector Governance</td>
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<td>Commercialization</td>
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<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>36</td>
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<tr>
<td><strong>Average</strong></td>
<td><strong>38</strong></td>
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</table>

**Worldwide Governance Indicators**

Since 2001 Syria has attempted to reverse declining oil reserves and production by attracting foreign upstream investment. Investor interest has been limited and generally confined to small and medium size companies. US economic sanctions under the Syria Accountability Act since 2004 have also dampened investor interest. Although US companies were not required to divest their Syrian interests some chose to do so. Development of natural gas reserves is active and by 2010 Syria plans to bring an additional 194 BCF of gas production online and is actively developing import and export pipelines and gas-fired electric generation. Three new refineries are planned with the participation of China (CNPC), Iran (NIOC), Venezuela (PDVSA) and Malaysia (Petronas). In June 2008 the government raised diesel prices by 350% although they still remain below global and regional levels. As a result, active smuggling of Syrian oil products to neighboring countries, especially Iraq, continues to be a significant problem.
## Database

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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>6</td>
<td>There are 8 wholly or partially state owned hydrocarbon sector companies in Syria. The wholly-owned companies are Syrian Petroleum Company (upstream oil); Syrian Gas Company (upstream gas); the Baniyas and Homs refineries; Syrian Company for the Distribution of Petroleum Products, Syrian Company for Oil Transportation and Sytrol, the oil marketing company. The partially owned company is oil producer Al-Furat Petroleum Company, a joint venture between Syrian Petroleum Co., Shell (37.5%), Oil and Natural Gas Corporation (ONGC) of India, and China National Petroleum Corp. (CNPC) which operates about 36 fields in northeastern Syria.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>6, 9</td>
<td>8</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>6, 9</td>
<td>The Syrian Petroleum Co. is an arm of the Ministry of Petroleum and Mineral Resources. Al-Furat is a joint venture. The Syrian government is the sole owner of all companies except Al-Furat where their interest is undisclosed. Al-Furat is a Syrian joint stock company with a service contract for production operations.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>6</td>
<td>See above.</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
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<td>None</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>None</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>11</td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
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<td>No data</td>
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<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
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<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
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<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
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<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>6</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td>9</td>
<td>Al-Furat has a mission statement: develop discovered fields using latest technologies; maximize economic recovery of hydrocarbons; maintain high production rates; train national staff to replace expatriates and support the Syrian economy and the development of social services in the country.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
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<td>No data</td>
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<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
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<td>No disclosure of financial/operating data</td>
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<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
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<td>No data</td>
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<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008 6, 9</td>
<td>SPC operates only in Syria. Syria has tendered exploration blocks to private and foreign companies with production sharing agreements which include the participation of SPC and the government. It also has the Al-Furat joint venture which is focused on oil production operations pursuant to a service contract.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008 6</td>
<td>SPC assets include a 250,000 B/D oil pipeline; most oil transported by trucks and tankers.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008 6</td>
<td>SPC operates two refineries at Baniyas (132,725 B/D) and Homs (107,140 B/D) which produce a surplus of heavier products, including fuel oil, but fail to meet demand for lighter products such as distillates. The Syrian Company for Distribution of Petroleum Products markets oil products and controls the majority of gasoline retail outlets. Sytrol markets oil products including exports. There is a substantial black market in the resale of smuggled subsidized Syrian</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>6</td>
<td>75% of gas reserves in Syria are owned by Syrian Gas Company. 50% of reserves are non-associated gas. Two finds were reported in 2006/2007 totaling 2 TCF but reserves are unconfirmed, development plans unannounced. Marathon Oil and Soyuzneftegas have gas projects totaling $977 million in investment.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>6</td>
<td>SPC has 1,250 miles of domestic gas pipelines and 5 gas processing plants with 1.1 BCF/D capacity. The 53 MMCF/D Syria-Lebanon pipeline is not operating. Several export/import gas pipeline projects have been announced. Syria wants to be a regional gas hub and transit country bringing gas to Europe.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>None disclosed.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>6</td>
<td>SPC does not operate in the Syrian power sector. Installed generation capacity in Syria is 6.5 GW. There are 11 natural gas and fuel oil thermal plants and one 1.5 GW hydroelectric facility. Syria wants to replace fuel oil generation with natural gas by 2014; currently 50% of generation is from gas. Prices are subsidized resulting in 7% p.a. demand growth. The sector is open to independent power plant project developers; 3 gas-fired IPPs are underway totaling 1,950 MW. Financing is provided by Europe and Arab funds.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>-20%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>-17%</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>-21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td>None disclosed.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td>No clear definition. Syrian Petroleum Co. is part of the Ministry of Petroleum and Mineral Resources. Absence of independent regulators.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td>None disclosed.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>None disclosed.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td>None disclosed.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>Syria is not a candidate country for EITI. Other transparency initiatives appear not to operate there.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No data, NOCs unrated.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>5, 9</td>
<td>There are specific laws/decrees addressing non-NOC participation in various sectors. There is no comprehensive hydrocarbon law.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>5, 6, 9</td>
<td>Yes. PSAs are used in the upstream sector. JVs and partnerships are used in the midstream and downstream sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2008</td>
<td>5, 6, 9</td>
<td>PSAs in the upstream sector. JVs and partnerships in the midstream and downstream sectors.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>Syrian NOCs operate in all sectors but they are separate, not integrated companies.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008 5, 6, 9</td>
<td>Yes via PSAs that include participation by Syrian Petroleum Co. and the government.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008 5, 6, 9</td>
<td>Still limited due to limited investor interest. Participating non-NOCs are small to medium size companies with corresponding investment levels. Syrian Petroleum Co. and government must be participants in PSAs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008 6</td>
<td>Almost non-existent at present but significant projects in midstream and downstream with non-domestic NOC participants announced and/or in process. Syrian NOCs participate in these projects.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008 9</td>
<td>Al-Furat is viewed as a successful service contract arrangement operating since 1985.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>None. No plans in process.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>No data except for price subsidies</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008</td>
<td>17</td>
<td>None. Syrian institutional capacity in the sector is regarded as low.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2008</td>
<td>18</td>
<td>Price subsidies reported in the press.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data outside price subsidies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Very limited data provided but reliability is generally good. No operating/financial performance data available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>Foreign companies controlled E&amp;P operations until 1958. In 1964 Decree No. 133 granted E&amp;P licenses to the Syrian government only. Syrian Petroleum Co. was established in 1974 pursuant to Decree No. 9. In 1975 permission was granted to international oil companies to explore and invest pursuant to PSAs which include Syrian Petroleum Co. and the government.</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2008</td>
<td>6, 18</td>
<td>Since 2001 Syria has attempted to reverse declining oil reserves and production by attracting foreign upstream investment. Investor interest has been limited and generally confined to small and medium size companies. US economic sanctions under the Syria Accountability Act since 2004 have also dampened investor interest. Although US companies were not required to divest their Syrian interests some chose to do so. Development of natural gas reserves is active and by 2010 Syria plans to bring an additional 194 BCF of gas production online and is actively developing import and export pipelines and gas-fired electric generation. Three new refineries are planned with the participation of China (CNPC), Iran (NIOC), Venezuela (PDVSA) and Malaysia (Petronas). In June 2008 the government raised diesel prices by 350% although they still remain below global and regional levels. As a result, active smuggling of Syrian oil products to neighboring countries, especially Iraq, continues to be a significant problem.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>16,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
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<td>13,981</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>24.19</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>6.12%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
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<td>2.43%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
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<td>2,500.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>10,170.62</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
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<td>Unaudited</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td>58.77%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
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<td>99.98%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
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<td>12.10%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>No</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Source of Information

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<th>Source Description</th>
<th>Links</th>
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<tr>
<td>1</td>
<td>2008</td>
<td>The Syrian National Petroleum Company does not report reserves, production or changes in either. Figures reported here are total Syria reserves from the USEIA-Country Analysis Brief Syria 3/28/08 and the BP Statistical Review of Energy 2008.</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Syria/Background.html">http://www.eia.doe.gov/emeu/cabs/Syria/Background.html</a></td>
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<td>2</td>
<td>2008</td>
<td>2007 export estimate from USEIA-CAB Syria 3/28/08. Previous years are CEE estimates based on 2007 exports as percent of total production.</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Syria/Background.html">http://www.eia.doe.gov/emeu/cabs/Syria/Background.html</a></td>
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<td>5</td>
<td>2008</td>
<td>SPC web site</td>
<td><a href="http://www.spc-sy.com">www.spc-sy.com</a></td>
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<tr>
<td>9</td>
<td>2008</td>
<td>Al Furat Petroleum</td>
<td><a href="http://www.afpc-sy.com">www.afpc-sy.com</a></td>
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</table>
### Tunisia: Entreprise Tunisienne d'Activités Pétrolières (ETAP)

#### Summary Report

<table>
<thead>
<tr>
<th>Corporate Governance Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Organization and Ownership</strong></td>
</tr>
<tr>
<td>Created by the law N°72-22 of March 10th, 1972; incorporated in the Tunisian Republic.</td>
</tr>
<tr>
<td><strong>Shares Controlled by Government</strong></td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td><strong>Domestic, International Exchanges for Equity Listings</strong></td>
</tr>
<tr>
<td>None reported</td>
</tr>
<tr>
<td><strong>Board of Directors Structure</strong></td>
</tr>
<tr>
<td>13 members</td>
</tr>
<tr>
<td><strong>Independent Board Members</strong></td>
</tr>
<tr>
<td>None disclosed</td>
</tr>
<tr>
<td><strong>Is chairman also minister of energy or otherwise appointed by head of state?</strong></td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

#### Operations Highlights

| **Upstream Oil** |
| Operates solely in the country. Does not have sole access to resources. |
| **Midstream Oil** |
| 0 |
| **Downstream Oil** |
| Does not operate |
| **Upstream Natural Gas** |
| 0 |
| **Midstream Natural Gas** |
| Does not operate |
| **Downstream Natural Gas** |
| Does not operate |
| **Other** |
| Does not operate |

#### Operations Performance Highlights (2004-2007; not all years or data reported)

| **Upstream: Average Proved Oil Reserves (MM Barrels)** |
| 235 |
| **Upstream: Average Proved Gas Reserves (BCF)** |
| 784 |
| **Upstream: Average Annual Oil Production (MM Barrels)** |
| 16 |
| **Upstream: Average Annual Natural Gas Production (BCF)** |
| 21 |
| **Downstream: Average Annual Refinery Production (MM Barrels)** |
| 12 |

#### Financial Performance Highlights (2004-2007; not all years or data reported)

| **Consolidated Average Total Revenues($Millions)** |
| 384 |
| **Consolidated Average Total Assets($Millions)** |
| 946 |
| **Consolidated Average EBIT ($Millions)** |
| 233 |
| **Consolidated Average Net Income ($Millions)** |
| 47 |
**Categorization Indicators**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>78</td>
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<tr>
<td>Public Sector Governance</td>
<td>82</td>
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<tr>
<td>Commercialization</td>
<td>83</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>88</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>0</td>
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<tr>
<td>Oil Dependency</td>
<td>100</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>-13</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>72</td>
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</table>

**Worldwide Governance Indicators**

Trends and Issues

Tunisia has a diversified economy but has high unemployment rates and generally strong government controls. The country is a net energy importer in spite of its resource endowment. This is partly due to the institutional and regulatory framework. Increased economic liberalization - (reduce the role of the government in the economy, streamline bureaucratic procedures, accelerate and make more transparent government decision-making, and improve the quality, price, and availability of telecommunications services – are essential to improve the investment climate, and support the achievement of broader economic goals for the country.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>Enterprise Tunisienne d'Activités Pétrolières (ETAP) is a 100% state-owned company that manages oil and gas exploration and production activities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>4 (upstream (ETAP), downstream (STIR) and electricity and natural gas (STEG), distribution and marketing (SNDP).)</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td>Created by the law N°72-22 of March 10th, 1972.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>None reported</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>None reported</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td>13 members</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td>None disclosed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>None disclosed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td>None disclosed</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>BOD does have power</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
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<td>None disclosed</td>
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<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>3</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2005</td>
<td>1</td>
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<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2005</td>
<td>1</td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Other (power generation, etc)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg reserve replacement rate (BOE, %)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg reserve replacement cost ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Change in BOE reserves (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Change in BOE production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream exploration and production expenses ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg production costs excluding production taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg upstream after-tax income/revenues (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg earnings before interest &amp; taxes ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg income after all taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg operating cash flow vs costs incurred (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance After tax return on assets</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Avg refinery utilization rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance Change in total refining production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Change in refinery capacity (%)</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance Avg income from operations per unit volume (SM/barrel)</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
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<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>113%</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>-----------------</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td>See mission statement</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2006</td>
<td>Information on oil revenue is contained in the state budget and in ETAP’s annual reports. There is no special oil revenue management mechanism or fund.</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td>Tunisia does not participate in EITI and no other major transparency programs operate in the country.</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008</td>
<td>No data except for miscellaneous references.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>Fitch AA+ (long-term), F1+ (short-term)</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2003</td>
<td>More or less, although certain restrictions on non-NOC’s (right to purchase assets after 4 years if necessary at disclosed compensation rates; art. 70 H. Code).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007</td>
<td>New laws, presented in 2000, boosted foreign presence in the upstream.</td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>Concession arrangements mainly</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td>Concession arrangements mainly</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>------------------------</td>
<td>-----------------</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Pure upstream company</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % total company BOE production</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>4 Non-NOC participants - foreign companies-concessioners; no formal requirement to partner with NOC, yet a provision exists that there is a reduction in the tax rate from 75 percent to 50 percent if ETAP takes a 40 percent share of the concession.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Very little if any</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td>Very little if any</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>--------------------</td>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>Concessions are successful</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Not applicable (MoUs and JV's but no activity yet).</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>Ministry of Industry and Energy acts as a regulator</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>Not enough data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>Appears so, yet not enough data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>Not enough data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007 5</td>
<td>Subsidy is provided by the government through appropriation from the state budget. Does not affect NOCs revenue contributions.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>--------------------</td>
<td>-----------------------</td>
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<td>------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>None reported</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>$1,610.92</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td>$14.95</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>$654.98</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>NOC reports under national standards, somewhat close to international ones. The data seem to be reliable.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>ETAP was created in 1972. Longevity is subject to any economic liberalization trends in Tunisia.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Tunisia has a diversified economy but has high unemployment rates and generally strong government controls. The country is a net energy importer in spite of its resource endowment. This is partly due to the institutional and regulatory framework. Increased economic liberalization - (reduce the role of the government in the economy, streamline bureaucratic procedures, accelerate and make more transparent government decision-making, and improve the quality, price, and availability of telecommunications services – are essential to improve the investment climate, and support the achievement of broader economic goals for the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>587</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>$54,717.85</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>21.30</td>
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</table>
## Tunisia: Entreprise Tunisienne d'Activités Pétrolières (ETAP)

<table>
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<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>0.54%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>0.30%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>596.00</td>
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<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>2,750.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>1,070.14</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>55.69%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.96%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>86.69%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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<td>Source #</td>
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<td>Source Description</td>
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<td>----------------------------------------------------------------------</td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>2007</td>
<td>USEIA – Country Analysis</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Arab_Maghreb_Union/Tunisia.html">http://www.eia.doe.gov/emeu/cabs/Arab_Maghreb_Union/Tunisia.html</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
United Arab Emirates (UAE): Abu Dhabi National Oil Company (ADNOC)

Corporate Governance Highlights

**Corporate Organization and Ownership**
ADNOC is fully owned by the government (supervised by The Supreme Petroleum Council). Upstream affiliated companies are minority-owned by foreign companies.

**Shares Controlled by Government (%)**
100%

**Domestic, International Exchanges for Equity Listings**
None

**Board of Directors Structure**
Not applicable

**Independent Board Members**
Not applicable

**Is chairman also minister of energy or otherwise appointed by head of state?**
Not applicable

Operations Highlights

**Upstream Oil**
Oil and gas exploration and production both offshore and onshore. Have sole access to resources.

**Midstream Oil**
Over 800 kilometers of pipelines (including NG); oil tanker company.

**Downstream Oil**
Oil refining capacity over 500 MB/D; over 170 gas stations (as of 2003).

**Upstream Natural Gas**
Production of associated and non-associated gas

**Midstream Natural Gas**
ADGAS LNG, NGL plant, LNG shipping company

**Downstream Natural Gas**
Production of ammonia and urea, as well as polyethylene

**Other**
No data

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>891</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>139</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Financial Performance Highlights</th>
<th>2004-2007</th>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>No data</td>
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### Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
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<tr>
<td>Public Sector Governance</td>
<td>38</td>
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<tr>
<td>Commercialization</td>
<td>67</td>
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<tr>
<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
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<tr>
<td>Oil Dependency</td>
<td>58</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>36</td>
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<tr>
<td>Average</td>
<td>50</td>
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### Worldwide Governance Indicators

The United Arab Emirates has enjoyed great success in the current commodity cycle. The UAE is heavily dependent upon hydrocarbon revenues, but has used oil revenue to finance a wide variety of diversification strategies ranging from education and research, to real estate, to finance. Abu Dhabi is interesting for its focus on R&D and commercialization of alternative energy technologies. Politically, the UAE has strong and constructive international relationships and partnerships.
### United Arab Emirates: Abu Dhabi National Oil Company (ADNOC)

#### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
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<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2004</td>
<td>1</td>
<td>Abu Dhabi National Oil Company (ADNOC) combines various energy and petrochemical companies</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2004</td>
<td>1</td>
<td>ADNOC is fully owned by the government (supervised by The Supreme Petroleum Council). Upstream affiliated companies are minority-owned by foreign companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2004</td>
<td>1</td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
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<td>None</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>None</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
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<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
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<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>Not applicable</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>Fiscal regime is applicable to foreign entities only. Supreme Petroleum Council and ADNOC share decision-making responsibility.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>The budget process appears to be unpredictable.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td></td>
<td>Yes; JV's in petrochemicals, etc.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2004 1</td>
<td></td>
<td>&quot;Our business is about finding, producing and marketing the natural resources on which the modern world depends.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>Fiscal regime is applicable to foreign entities only. Supreme Petroleum Council and ADNOC share decision-making privileges.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>Releases unaudited performance reports once in 5 years; data is very limited.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2004 1</td>
<td></td>
<td>ADNOC Petroleum Institute established</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2004, 2008 1,2</td>
<td></td>
<td>Only very general information</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2004 1</td>
<td></td>
<td>Sponsorship in all social, economic and educational sectors</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2004</td>
<td>1</td>
<td>Oil and gas exploration and production both offshore and onshore. Have sole access to resources.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2004</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2004</td>
<td>1</td>
<td>Over 800 kilometers of pipelines (including NG); oil tanker company.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2004</td>
<td>1</td>
<td>Oil refining capacity over 500 MB/D; over 170 gas stations (as of 2003).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2004</td>
<td>1</td>
<td>Production of associated and non-associated gas</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2004</td>
<td>1</td>
<td>ADGAS LNG, NGL plant, LNG shipping company</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2004</td>
<td>1</td>
<td>Production of ammonia and urea, as well as polyethylene</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2004, 2008</td>
<td>1,2</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2004</td>
<td>1</td>
<td>Role of Supreme Petroleum Council is defined; Ministry of Energy exists, but role is unclear. Regulator role is shared by SPC and ADNOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2004</td>
<td>1</td>
<td>Role of Supreme Petroleum Council is defined; Ministry of Energy exists, but role is unclear. Regulator role is shared by SPC and ADNOC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>Absent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>10, 11, 12, 13, 15</td>
<td>The Abu Dhabi Investment Authority’s (ADIA) was established in 1976. ADIA replaced the Financial Investments Board created in 1967 part of the then Abu Dhabi Ministry of Finance. ADIA’s funding sources derives from oil, specifically from the Abu Dhabi National Oil Company (ADNOC) and its subsidiaries which pay a dividend to help fund ADIA and its sister fund Abu Dhabi Investment Company (ADIC), founded in 1977. Similar to Abu Dhabi’s strategy, Dubai developed plans to diversify their reliance on oil exports through creating sovereign wealth vehicles. There are several sovereign wealth funds: Investment Corporation of Dubai, Bourse Dubai ltd, Dubai Holdings, and Dubai World. The RAK Investment Authority was created by Emiri Decree No. (2)/ 2005 with the mandate to promote investments in various economic sectors. Information on the holdings and operations of the above sovereign wealth fund is not publicly disclosed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>Neither ADNOC nor the Abu Dhabi government support EITI. No other transparency programs operate in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008</td>
<td>4</td>
<td>Fiscal regime is applicable to foreign entities only.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2008</td>
<td>4</td>
<td>Fiscal regime is applicable to foreign entities only.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td>PSAs and concessions</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2004</td>
<td>1</td>
<td>Affiliates have a minority foreign ownership and operate under concession agreements, PSAs as well.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2004</td>
<td>1</td>
<td>Has service companies - affiliates; extent of outsourcing is unclear.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Vertically integrated affiliates</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008 4</td>
<td>Under concession agreements with foreign minority ownership</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Low level of competition. ADNOC has the right to take up to 60 percent in new oil projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008 4</td>
<td>No competition. Emirates in the UAE own and control its own infrastructure.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>Under concession agreements with foreign minority ownership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>51% in Dolphin Energy (natural gas) in Qatar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008 4</td>
<td>There is no regulator in UAE</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Very little, unaudited data reported.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2004</td>
<td>1</td>
<td>ADNOC was established in 1971 and there are no indications that it would not persist.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>The United Arab Emirates has enjoyed great success in the current commodity cycle. The UAE is heavily dependent upon hydrocarbon revenues, but has used oil revenue to finance a wide variety of diversification strategies ranging from education and research, to real estate, to finance. Abu Dhabi is interesting for its focus on R&amp;D and commercialization of alternative energy technologies. Politically, the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td>------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>70,000</td>
<td>UAE has strong and constructive international relationships and partnerships.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>15,695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>0 0 98.92</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>0.48</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>0.42</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>97,800.00</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>215,066.29</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>134,880.40</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>0.73</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>1.00</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>3.19</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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## Sources of Information

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<tr>
<th>Source #</th>
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<tr>
<td>2</td>
<td>2008</td>
<td>Company web-site</td>
<td><a href="http://www.adnoc.ae">www.adnoc.ae</a></td>
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<tr>
<td>6</td>
<td>2007</td>
<td>USEIA Country Analysis Brief</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/UAE/Profile.html">http://www.eia.doe.gov/emeu/cabs/UAE/Profile.html</a></td>
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<tr>
<td>9</td>
<td>2007</td>
<td>ADNOC News. Oil and gas industry in the UAE. Published On: 30/05/2007</td>
<td><a href="http://www.adnoc.ae/AdnocNews_Details.aspx?NewID=d1410441-760a-4be8-a0be-fb9d22d5687d&amp;newid=162&amp;mid=162;%205">http://www.adnoc.ae/AdnocNews_Details.aspx?NewID=d1410441-760a-4be8-a0be-fb9d22d5687d&amp;newid=162&amp;mid=162;%205</a></td>
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<td>12</td>
<td>2008</td>
<td>Bourse Dubai Ltd.</td>
<td><a href="http://www.borsedubai.ae">http://www.borsedubai.ae</a></td>
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<td>13</td>
<td>2008</td>
<td>Dubai Holdings</td>
<td><a href="http://www.dubaiholding.com">http://www.dubaiholding.com</a></td>
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</tbody>
</table>
The NOCs in South Asia
Bangladesh: PetroBangla

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
"PetroBangla is under administrative control of the Energy and Mineral Resources Division of the Ministry of Power, Energy and
Mineral Resources."

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
PB and its companies are not listed on any exchanges. However, its subsidiaries such as BAPEX are encouraged to issue an IPO
and be listed on the Dhaka Stock Exchange.

Board of Directors Structure
The Board of Directors is the policy making and managing body of PetroBangla, with members (17) from various Ministries:
Ministry of Energy, Ministry of Finance, and Ministry of Planning. Board members also hold posts in PetroBangla companies.

Independent Board Members
It appears that board members are not independent and also hold posts in various PetroBangla companies. They are appointed by
the government on recommendation of PB.

Is chairman also minister of energy or otherwise appointed by head of state?
Appointed.

Operations Highlights

Upstream Oil
E&P of oil and gas in the public sector is done primarily by BAPEX Company (subsidiary of PetroBangla). Oil E&P is low
priority given larger natural gas reserves. There are also a few PSAs with foreign oil companies.

Midstream Oil
No data.

Downstream Oil
No refining by PB. Bangladesh Petroleum Corporation (BPC) is a government-owned monopoly in Bangladesh which imports
crude and refined products; refines oil; distributes/markets fuel oils, lubricants and other petroleum products in Bangladesh.

Upstream Natural Gas
Exploration is conducted by PetroBangla's subsidiary, BAPEX. Although BAPEX produces, major public sector gas companies
are Bangladesh Gas Fields Company Ltd. and Sylhet Gas Fields Ltd. (producing 63.69% of gas), which are both subsidiaries of
PetroBangla.

Midstream Natural Gas
Gas Transmission Company, the state monopoly for gas transport, transports high pressure bulk gas for private and public gas
producers. LPG and CNG developments are actively encouraged by PetroBangla. Bangladesh does not produce or import LNG.

Downstream Natural Gas
Four marketing companies work under PetroBangla. Each has their own marketing franchise covered by a fairly extensive
distribution system. Most of the distribution system is concentrated in the eastern zone; with plans to expand in the western zone.

Other
PetroBangla also has coal and granite mines.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>21</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>0</td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>437</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
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</table>
Bangladesh: PetroBangla

Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>1,075</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>1,421</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>108</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>-67</td>
</tr>
</tbody>
</table>

Categorization Indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>47</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>50</td>
</tr>
<tr>
<td>Commercialization</td>
<td>66</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>38</td>
</tr>
<tr>
<td>Resource Endowment</td>
<td>1</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>96</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>61</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>50</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

Bangladesh is endowed with large gas reserves that could be used to support the reduction of extreme levels of poverty, improving environmental conditions and modernizing the country’s economy. To this end, Bangladesh needs to introduce reforms to promote investments, including changing the gas pricing policy to ensure sustainable performance of the sector, institutional restructuring to encourage the reduction of system losses, improve transparency in financial operations, and strengthen the role of the regulator.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td></td>
<td>There are two NOCs in Bangladesh - PetroBangla and Bangladesh Petroleum Company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006, 2008</td>
<td>1, 2</td>
<td>Bangladesh Mineral Oil &amp; Gas Corporation (BMOGC) was created through the Presidential order #27 on March 26, 1972. The minerals operation of the corporation was segregated and vested with a new organization, Bangladesh Mineral Development Corporation (BMEDC), on 27 September 1972. The reconstituted Bangladesh Oil &amp; Gas Corporation (BOGC) was then named Petrobangla in 1974. In 1976 the importation, refining and marketing of crude and petroleum products was transferred to a new company, Bangladesh Petroleum Corporation. BOGC and BMEDC were merged into a single entity, Bangladesh Oil, Gas &amp; Minerals Corporation (BOGMC), in 1985. In 1989, the corporation was short named Petrobangla and given the authority to hold the shares of the companies dealing in oil, gas and minerals exploration and development. &quot;PetroBangla is under administrative control of the Energy and Mineral Resources Division of the Ministry of Power, Energy and Mineral Resources.”</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>7</td>
<td>PB and its companies are not listed on any exchanges. However “Dhaka Stock Exchange (DSE) yesterday urged Bapex, the petroleum and oil exploration division of Petrobangla, to raise capital from the stock market through an Initial Public Offering (IPO) and use the money raised for gas exploring activities.” (June 2008)</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>None</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>No</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2006 1 The Board of Directors is the policy making and managing body of PetroBangla, with members (17) from various Ministries: Ministry of Energy, Ministry of Finance, and Ministry of Planning. Board members also hold posts in PetroBangla companies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>The chairman is appointed by the President of the Country.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2006 1 There are no independent Board members. Board members are appointed by the government on PB’s recommendations and some hold office in PetroBangla’s subsidiaries.</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>The Board of Directors is the policy making and managing body of PetroBangla.</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>Appointed.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2006 1-12 The budget process involves other government agencies. Activities of PB are reviewed and examined by the Public Accounts Committee and the Parliamentary Standing Committee on Power, Energy &amp; Mineral Resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making</td>
<td>Does the NOC have</td>
<td>2006 1-11 It is in Petrobangla's mandate to</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Governance</td>
<td>Processes, Budget Autonomy</td>
<td>authority to partner with other entities?</td>
<td></td>
<td></td>
<td>&quot;enter into PSAs with IOCs for exploration and development of Oil and Gas and to supervise, monitor and coordinate the activities under the signed PSAs.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2004</td>
<td>3</td>
<td>The Energy Policy states that PetroBangla &quot;should have the right to select employees on its own terms and conditions of employment so as to attract and retain high quality staff.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2006</td>
<td>1</td>
<td>E&amp;P of oil and gas in the public sector is done primarily by BAPEX Company (subsidiary of PetroBangla). Oil E&amp;P is low priority given larger natural gas reserves. There are also a few PSAs with foreign oil companies.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>No data.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td></td>
<td></td>
<td>No refining by PB. Bangladesh Petroleum Corporation (BPC) is a government-owned monopoly</td>
</tr>
</tbody>
</table>
### Bangladesh: PetroBangla

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
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<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2006</td>
<td>1</td>
<td>Exploration is conducted by PetroBangla's subsidiary, BAPEX. Although BAPEX produces, major public sector gas companies are Bangladesh Gas Fields Company Ltd. and Sylhet Gas Fields Ltd. (producing 63.69% of gas), which are both subsidiaries of PetroBangla.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2006</td>
<td>1</td>
<td>Gas Transmission Company, the state monopoly for gas transport, transports high pressure bulk gas for private and public gas producers. LPG and CNG developments are actively encouraged by PetroBangla. Bangladesh does not produce or import LNG.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2006</td>
<td>1</td>
<td>Four marketing companies work under PetroBangla. Each has their own marketing franchise covered by a fairly extensive distribution system. Most of the distribution system is concentrated in the eastern zone; with plans to expand in the western zone.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>PetroBangla also has coal and granite mines.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>71%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>-39%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>$0.29</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>-6%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>418%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>-5%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>-8%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>2</td>
<td>The role of the hydrocarbon sector is defined in the revised National Energy Policy (NEP)</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td>Functions of various agencies (Ministries, BERC) and PetroBangla are defined. However, there is duplication in some functions among these.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>The state budget does not provide a breakdown of revenue in oil and non-oil. No information is available on petroleum revenue management and its distribution within the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>10, 11</td>
<td>Not participating in EITI and not a candidate country. Both National Democratic Institute and Transparency International maintain operations in Bangladesh.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital</td>
<td>2008</td>
<td>9</td>
<td>New model PSAs were drafted for the 3rd round of negotiation.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>A major issue for Bangladesh has been natural gas monetization, in particular for regional export.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>The law exists but some of the requirements, such as partnering with PetroBangla, may not be fully attractive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>PSAs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>Turnkey contracts are used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Vertically integrated gas exploration, production, transmission, and distribution company.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007</td>
<td>6</td>
<td>Three state-owned subsidiaries of PetroBangla dominate natural gas E&amp;P. IOCs also participate, mainly through PSAs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>5</td>
<td>Gas exploration, exploitation and production activities are conducted under PSAs between PetroBangla and IOCs. However, the gas sector is fraught with conflict. PetroBangla is the main buyer of gas produced by the country. It is also the principal entity that can define its uses and pricing. PetroBangla also represents the interest of the government who owns all but the foreign gas companies operating in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td></td>
<td>No competition. Domestic natural gas pipeline network is operated by the Gas Transmission Company Ltd. (GTCL), a subsidiary of PetroBangla. Bangladesh Energy Regulatory Commission (BERC), founded in 2003, suffers from budgetary and HR shortcomings that hinder its activity as regulator and affect its independence.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td>Currently, there is limited joint activity in Bangladesh. In the past, NOC/non-NOC alliances added to gas production.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>Not privatized.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>None.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007 13 The Bangladesh Energy Regulatory Commission Act, 2003 established the Bangladesh Energy Regulatory Commission. BERC regulates downstream markets, including the issuing of licenses for gas distribution. BERC has no role in the upstream.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2007 13 The pricing mechanisms do not encourage investment and efficiency of operations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2007 13 Bangladesh Energy Regulatory Commission (BERC) often suffers from budgetary shortcomings that hinder its activity as regulator and affect its independence.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2007 5-10; 9 &quot;No statutory regulations directly addressing the issue of dispute resolution procedure in the natural gas sector.&quot; &quot;PetroBangla has been forced to go to international arbitration several times over the dispute with IOCs on gas transmission lines and payment of wheeling charge as per the existing PSAs.&quot;</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007 8-4 The liquid fuel is offered to key end users in Bangladesh at about a 40% lower price than to consumers in other countries of the region. Gas prices are subsidized as well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>$177.68</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$134.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Current operational data is available from the company's website and ministries' websites. Limited financial data is available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>Bangladesh Mineral Oil and Gas Corporation (BOGMC), predecessor of PetroBangla, was created in 1972. Reconstituted BODGC was formed as PetroBangla in 1974. PB is positioned quite strongly in the country.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2007</td>
<td>Bangladesh is endowed with large gas reserves that could be used to support the reduction of extreme levels of poverty, improving environmental conditions and modernizing the country’s economy. To this end, Bangladesh needs to introduce reforms to promote investments, including changing the gas pricing policy to ensure sustainable performance of the sector, institutional restructuring to encourage the reduction of system losses, improve transparency in financial operations, and strengthen the role of the regulator.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>8,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>9,423</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>52.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-19.09%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-5.72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>3,000.00</td>
<td></td>
<td></td>
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<tr>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EYO natural gas reserves (BCF)</td>
<td></td>
<td></td>
<td>13,772.72</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td></td>
<td>5,374.61</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>55.82%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>96.11%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>74.43%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td></td>
<td>No</td>
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## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
<th>Source Description</th>
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<tbody>
<tr>
<td>6</td>
<td>2007</td>
<td>USEIA Country Analysis Brief</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Bangladesh/Full.html">http://www.eia.doe.gov/emeu/cabs/Bangladesh/Full.html</a></td>
</tr>
</tbody>
</table>
India: Oil and Natural Gas Corporation Ltd. (ONGC)

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
ONGC was incorporated in 1994 and reflects the evolution of the ONG Commission of India. ONGC has 7 subsidiaries and is a partially privatized NOC.

Shares Controlled by Government
74.14% of the shares are controlled by the President of India while another 10.09% are controlled by other Indian NOCs. The rest is held by institutional investors and 2% by the public.

Domestic, International Exchanges for Equity Listings
ONGC is listed on the Bombay Stock exchange and on the National Stock Exchange of India.

Board of Directors Structure
The BOD is comprised of a Chairman, 6 full time executive directors and 7 non-executive directors. The Board “formulates strategies, policies and reviews its performance periodically”.

Independent Board Members
There are some independent board members who are selected by the bureaucracy and appointed by the President of India.

Is chairman also minister of energy or otherwise appointed by head of state?
Members of the BOD are appointed by the President of India.

Operations Highlights

Upstream Oil
ONGC operates domestically and has sought to increase its presence abroad. It does not have sole access to domestic resources.

Midstream Oil
ONGC does not have a midstream presence.

Downstream Oil
ONGC has a refinery in Mangalore with a capacity of 9 million tons but operating at 12 MMT. ONGC has very few service stations.

Upstream Natural Gas
Yes.

Midstream Natural Gas
Natural gas has been given to GAIL. In the future ONGC is likely to enter natural gas operations also.

Downstream Natural Gas
ONGC is entering the petrochemicals segment.

Other
ONGC has shown interest in the power sector but has been constrained from entry by the petroleum ministry.

Operations Performance Highlights (2004-2007; not all years or data reported)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>5,449</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>5,449</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>198</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
<td>922</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
<td>357</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
<td>198</td>
</tr>
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</table>
## Categorization Indicators

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<td>59</td>
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<td>Public Sector Governance</td>
<td>76</td>
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<td>Commercialization</td>
<td>92</td>
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<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
<td>2</td>
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<tr>
<td>Oil Dependency</td>
<td>96</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>60</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>75</td>
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<tr>
<td>Average</td>
<td>67</td>
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</table>

## Worldwide Governance Indicators

India’s dependency on oil is projected to increase from the current level of 75% to a projected 95% by 2030. The combination of rising oil consumption and fairly stable production levels leaves India increasingly dependent on imports to meet consumption needs. Recent natural gas discoveries offshore will help to attenuate this dependence but will not be sufficient to meet internal demand. To help meet this growing demand, a number of import schemes including both LNG and pipeline projects have either been implemented or considered. Several natural gas pipeline projects have been on the chart for some years but have yet to be realized, hindered by regional and wider geopolitical considerations.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>5</td>
<td>The state participates in 14 oil and gas companies. Oil and Natural Gas Corporation (ONGC) is the largest oil company, and also the country’s largest company overall by market capitalization. There are several state-owned companies in the downstream sector, of which the Indian Oil Corporation (IOC) is the largest.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>5</td>
<td>14</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>ONGC was incorporated in 1994 and reflects the evolution of the ONG Commission of India. ONGC has 7 subsidiaries and is a partially privatized NOC.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1-27</td>
<td>74.14% of the shares are controlled by the President of India while another 10.09% are controlled by other Indian NOCs. The rest is held by institutional investors and 2% by the public.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1-24</td>
<td>ONGC is listed on the Bombay Stock exchange and on the National Stock Exchange of India.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td></td>
<td>Not listed</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td></td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2007</td>
<td>1-6</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1-6</td>
<td>The BOD is comprised of a Chairman, 6 full time executive directors and 7 non-executive directors. The Board &quot;formulates strategies, policies and reviews its performance periodically&quot;. Despite the appearance of an independent board, policies are mostly controlled by the petroleum minister. The BOD appears to be a weak institution.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2007</td>
<td>1-6</td>
<td>Members of the BOD are appointed by the President of India.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>There are some independent board members who are selected by the bureaucracy and appointed by the President of India.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
<td></td>
<td></td>
<td>Members of the BOD serve 2 years and they can be re-appointed for additional terms. The chairman is selected by a public sector appointment board which consists mostly of retired bureaucrats. The final choice is influenced by political input though merit of the candidate does play a role.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>BOD policy statements do have an impact and guide the strategies of the corporation. Some influence is exercised by the Petroleum Ministry and the ruling party.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>The BOD’s power, impact, decision making authority appear to be limited, or at least influenced by the government through the tight control of appointments.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>Key appointments of ONGC are filled by a procedure similar to that used for the BOD and merit does play a part in the final selection. Senior managers are for most part selected on an annual appraisal system. However, for some positions caste-based selection for promotion plays some role.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>Budget approval is a complicated process. Though ONGC prepares the budget, and it is responsible, the planning commission of India has some impact on the final numbers. Parliament has to give the final approval though for the most part this is a formality.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
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<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>ONGC</td>
<td>ONGC's budget making is a separate process and the country's budget has no impact. But there is a need to obtain formal approval from the parliament and the petroleum ministry plays a key role in the finalization along with direct or indirect input from the powerful planning commission.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>1</td>
<td>Yes. It has the authority to form partnerships with other entities, but must obtain approval from the petroleum ministry.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2006</td>
<td>1</td>
<td>The NOC has a general mission statement but no firm articulation. The 2006 annual report includes a vision from the President of India, that ONGC &quot;should give world leadership in management of energy sources, exploration of energy sources, diversification of energy sources, technology in Underground Coal Gasification and above all finding new ways of tapping energy wherever it is, to meet the ever growing demand of the country&quot;.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>After paying dividends to the government, the remaining amount is available to ONGC for reinvestment. However since the recent price increase in crude oil, the government has been transferring on an ad-hoc basis some percent of profit (the rationale for the target percentage has not been publicly disclosed) to downstream NOCs to compensate for their losses (whether or not the recipient entity has private shareholders). The decision regarding additional transfers is made by the Ministry of Petroleum (there appears to be no Parliamentary approval). The transfer is akin to a windfall profit tax charge.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2006</td>
<td>1</td>
<td>Accounts are audited by independent auditors who are appointed by the shareholders. These are disclosed on the NOC’s website.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical,</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other descriptors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008</td>
<td>1</td>
<td>There is a professional HR department and for the most part promotion is based on merit. Length of service is also one of the important factors. Years of service and caste-based quota are also considered. Upper management is appointed by the Government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-</td>
<td>Based on available information, brief description of reporting on noncommercial</td>
<td>2006</td>
<td>1</td>
<td>ONGC appears to have very little in noncommercial obligations.</td>
</tr>
<tr>
<td></td>
<td>commercial Objectives</td>
<td>objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name</td>
<td>2007</td>
<td>3</td>
<td>Yes, ONGC has interests in about 25 oil and gas projects in 15 countries (Vietnam, Dudan, Syria, Russia, Colombia, Brazil, Myanmar, Iran, Egypt, Libya, Sao Tome e Principe, Côte d’Ivoire, Cuba, Cyprus, and Congo).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>countries)? Does it have sole access to country’s resources?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>ONGC does not have a midstream presence.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>ONGC has a refinery in Mangalore with a capacity of 9 million tons but operating at 12 MMT. ONGC has very few service stations.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>Yes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>The Gas Authority of India Ltd. (GAIL) holds an effective monopoly on natural gas transmission and distribution activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>ONGC is entering the petrochemicals segment.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>ONGC has shown interest in the power sector, but no concrete steps have been taken so far.</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>100%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>10%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>3%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
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<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>38%</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>14%</td>
<td></td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>99%</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>0%</td>
<td></td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>13%</td>
<td></td>
<td></td>
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<tr>
<td>Financial Performance</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>40%</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td></td>
<td>ONGC has been requested to look for oil and gas abroad as a part of strategy for meeting national energy security requirements.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>5</td>
<td>“The Ministry of Petroleum &amp; Natural Gas is situated in Shastri Bhawan, New Delhi and is entrusted with the responsibility of exploration and production of oil and natural gas, their refining, distribution and marketing, import, export, and conservation of petroleum products and Liquified Natural Gas.” The Directorate General of Hydrocarbons (DGH) has regulatory and supervisory responsibility over public and private sector exploration and production. ONGC is expected to operate along commercial lines like any other privately owned company and state-owned companies. However, the clarity and independence of roles is sometimes unclear.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
<td>There are no such priorities for ONGC.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>Not applicable.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>6</td>
<td>For the most part, ONGC accounts are transparent and very detailed. The government’s petroleum revenue is indicated in the state budget, although as aggregate number. There is no specific petroleum revenue management mechanism.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>India does not participate in EITI.</td>
<td></td>
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<tr>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007, 2008</td>
<td>3, 5, 7</td>
<td>India continues to try to lure investment in its upstream sector. USEIA reports recognize the importance of the &quot;the New Exploration License Policy (NELP) in 2000, which for the first time permitted foreign companies to hold 100 percent equity ownership in oil and natural gas projects&quot;. “Today, around 23 foreign companies are located in India, apart from domestic majors. The biggest gas find in 2002 (by Reliance Industries Ltd) and the biggest onland crude oil find after 22 years by Cairn in the Barmer basin are testimonials to the success of NELP, and have effectively negated the perception that India’s onshore and offshore assets do not have any oil and gas prospectively.”</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>Yes. ONGC has a high credit rating. Its rating is higher than that of the country.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2007, 2008</td>
<td></td>
<td>The recent imposition of the windfall oil tax may be a deterrent to investing in exploration activities, as large share of projects upsides is captured by the government and even state-owned companies such as ONGC may not be able to retain enough cash for reinvestment. Recent licensing rounds did not attract much international interest, especially from the major IOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>See above, New Exploration License Policy (NELP) passed in 2000 in an attempt to attract market participants.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>To date, only a few foreign entities are operating in India. ONGC is treated just like any private oil company.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>There is no preference for ONGC and they also bid with other private companies.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>ONGC is taking steps to move towards vertical integration.</td>
<td>Not applicable.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>ONGC is taking steps to move towards vertical integration.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes, there are non-NOC participants; recent licensing rounds attracted domestic and international companies, but international majors were missing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>With even a few participants, upstream competition is vigorous.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>ONGC is not present in the midstream. There are several refineries operated by private companies but some are export only. There is vigorous competition in sales and marketing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>There are several non-NOC alliances both in India and abroad.</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td></td>
<td>ONGC is partially privatized as shown above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>s</td>
<td></td>
<td>ONGC international activity has grown considerably as energy security has pushed outbound investment strategies. A trade off is political risk outside of India.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>Except for possible employment practices, practically zero.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>The Directorate General of Hydrocarbons, affiliated with the Ministry of Petroleum and Natural Gas, provides regulatory oversight.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>ONGC has entered several countries outside India. This has been an important factor in adopting international standards, and developing good management practices.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>The independence of the Regulator is not clear, given the overall institutional culture and arrangements. Regulators are often chosen among retired officers and political appointments are not uncommon.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>The DGH is a relatively new institution. Its effectiveness is likely to improve as experience accumulates.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2002</td>
<td>4</td>
<td>India's administered price mechanism (APM) was replaced in 2002 by a market determined price mechanism (MPDM) but the government has continued to heavily subsidize domestic purchases of petroleum products. In June 2008, India raised fuel prices by an average 10% to reduce rising cost of subsidies, but the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2006</td>
<td>1</td>
<td>From the company’s annual report this appears to be limited.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>$315.58</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>ONGC and government web sites are accessible, with substantial data and information.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td></td>
<td>India’s organizations, agencies and bureaucracies are long lived. ONGC has been in place for more than two decades; its future will hinge on success with international strategies.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>India’s dependency on oil is projected to increase from the current level of 75% to a projected 95% by 2030. The combination of rising oil consumption and fairly stable production levels leaves India increasingly dependent on imports to meet consumption needs. Recent natural gas discoveries offshore will help to attenuate this dependence but will not be sufficient meet internal demand. To help meet this growing demand, a number of import schemes including both LNG and pipeline projects have either been implemented or considered. Several natural gas pipeline projects have been on the chart for some years but have yet to be realized, hindered by regional and wider geopolitical considerations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>34,166</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>10,437</td>
<td></td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>24.96</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-20.19%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-4.18%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>5,459.25</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>37,256.97</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>11,882.87</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>45.94%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.94%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>38.15%</td>
<td></td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
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## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
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<tbody>
<tr>
<td>3</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - India</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/India/Background.html">http://www.eia.doe.gov/emeu/cabs/India/Background.html</a></td>
</tr>
<tr>
<td>5</td>
<td>2008</td>
<td>Ministry of Petroleum and Natural Gas</td>
<td><a href="http://petroleum.nic.in/">http://petroleum.nic.in/</a></td>
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<td>6</td>
<td>2008</td>
<td>Ministry of Finance</td>
<td><a href="http://finmin.nic.in/the_ministry/dept_revenue/index.html">http://finmin.nic.in/the_ministry/dept_revenue/index.html</a></td>
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</table>
Pakistan: Oil & Gas Development Corporation Ltd. (OGDCL)

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
The government divested 14.8% of total shares and offered them to international and local institutional investors.

Shares Controlled by Government
85.2%

Domestic, International Exchanges for Equity Listings
London Stock Exchange, Islamabad Stock Exchange, Karachi Stock Exchange

Board of Directors Structure
Chairman and CEO, 10 Directors

Independent Board Members
All members of the BOD are external except one director who acts as the Ministry of Petroleum & Natural Resources.

Is chairman also minister of energy or otherwise appointed by head of state?
No

Operations Highlights

Upstream Oil
The company evaluates opportunities, domestic and overseas, to expand activities to other areas that may offer attractive exploration and development potential with a particular interest in those areas that complement their current exploration, development and production activities. OGDCL is the largest E&P company in Pakistan.

Midstream Oil
OGDCL does not have a pipeline infrastructure to entirely support upstream activities. Little storage capacity and no shipping network is owned by OGDCL.

Downstream Oil
OGDCL does not operate in the refining and marketing segment.

Upstream Natural Gas
OGDCL produces 25% of the country's natural gas. OMV is the foreign largest natural gas producer (17% of total country's production), other foreign operators are Eni, BP, and BHP Billiton.

Midstream Natural Gas
Pakistan's government is working on plans to build a pipeline that spans from Iran's natural gas reserves to India markets across Pakistan. However, no certainty on what NOC will be granted the opportunity to participate in this project. OGDCL has 29 oil and gas processing plants. These include dehydration, LPG, Sulfur Recovery, H2S Removal, Gas Sweetening, Condensate Stabilization, Refining and Compression Plants.

Downstream Natural Gas
OGDCL has downstream natural gas and NGL sales.

Other
None

Operations Performance Highlights (2004-2007; not all years or data reported)

| Metric                                      | 2004-2007
|---------------------------------------------|----------
| Upstream: Average Proved Oil Reserves (MM Barrels) | 96       |
| Upstream: Average Proved Gas Reserves (BCF)   | 704      |
| Upstream: Average Annual Oil Production (MM Barrels) | 18       |
| Upstream: Average Annual Natural Gas Production (BCF) | 397      |
| Downstream: Average Annual Refinery Production (MM Barrels) | No data |

Financial Performance Highlights (2004-2007; not all years or data reported)

| Metric                                      | 2004-2007
|---------------------------------------------|----------
| Consolidated Average Total Revenues ($Millions) | 1,655    |
| Consolidated Average Total Assets ($Millions)  | 2,073    |
| Consolidated Average EBIT ($Millions)         | 1,051    |
| Consolidated Average Net Income ($Millions)    | 758      |
In the last few years oil and gas production in Pakistan has been very slowly growing. The country is dependent on oil imports to satisfy domestic demand. Demand for refined petroleum products has also exceeded domestic oil refinery capacity; nearly half of the oil imports are refined products. Fuel subsidies exacerbate downstream capacity constraints by discouraging efficiency and spurring demand growth. The government is planning to build a pipeline that spans from Iran's natural gas reserves to Indian markets; although there is still concern on the amount Iran will charge for the natural gas. A second gas import possibility is an eventual link to the Dolphin project in Qatar. This project would supply natural gas from Qatar to Pakistan. A key issue for Pakistan's hydrocarbon sector is how best to supply fuels for the critical generation capacity expansions that the country needs.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>Oil &amp; Gas Development Corporation Ltd (OGDCL) is one of a cluster of 3 NOCs and other sovereign enterprises along with Pakistan Petroleum Ltd (PPL) and Pakistan State Oil (PSO).</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2007</td>
<td>1</td>
<td>The government divested 14.8% of total shares and offered them to international and local institutional investors.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2007</td>
<td>1</td>
<td>85.2%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2007</td>
<td>1</td>
<td>London Stock Exchange, Islamabad Stock Exchange, Karachi Stock Exchange</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2007</td>
<td>1</td>
<td>Chairman and CEO, 10 Directors</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2007</td>
<td>1</td>
<td>All members of the BOD are external except one director who acts as the Ministry of Petroleum &amp; Natural Resources.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2007</td>
<td>1</td>
<td>BOD's roles and policy statements are established by the Human Resources Committee and the CEO, and published in the company's annual report.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2007</td>
<td>1</td>
<td>The BOD has the authority to design strategies and evaluate projects which may provide a competitive advantage in the industry. BOD is also responsible for supervising all corporate policies and codes of</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No specific process for recruitment, replacement of key executives is in place.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2007</td>
<td>The BOD has approved OGDCL's first Strategic and Business Plan quantifying physical and financial goals and objectives. The plan stipulates medium term physical and financial targets on a macro level which forms the platform for preparing budget on a yearly basis.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>The three national oil companies, OGDCL, PSO and PPL, operate under joint ventures and partnerships with various international oil companies and other domestic firms.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007</td>
<td>&quot;To become a competitive, dynamic and growing E&amp;P company, rapidly enhancing our reserves through world class workforce, best management practices and technology and maximizes returns to all stakeholders by capturing high value business opportunities within the country and abroad while being a corporate responsible citizen.&quot;</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2007</td>
<td>Financial information revealed by the NOC includes revenues and cash flows. However, no budgeting process is clearly stated.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2007</td>
<td>Data is disclosed and audited by an international reliable firm.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical,</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2007</td>
<td>1</td>
<td>The Human Resources committee consists of five directors including the CEO. Responsible for approvals of appointments and promotions to the executive group, recommendation, guidance, restructuring the organization, and review of policies required under the code of corporate governance.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2007</td>
<td>1</td>
<td>The company evaluates opportunities, domestic and overseas, to expand activities to other areas that may offer attractive exploration and development potential with a particular interest in those areas that complement their current exploration, development and production activities. OGDCL is the largest E&amp;P company in Pakistan.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td></td>
<td>OGDCL does not have a pipeline infrastructure to entirely support upstream activities. The company has little storage capacity and no shipping network.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>1</td>
<td>OGDCL does not operate in the refining and marketing segment.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>2</td>
<td>OGDCL produces 25% of the country's natural gas. OMV is the foreign largest natural gas producer (17% of total country's production), other foreign operators are Eni, BP, and BHP Billiton.</td>
</tr>
<tr>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007</td>
<td>2</td>
<td>Pakistan's government is working on plans to build a pipeline that spans from Iran's natural gas reserves to India markets across Pakistan. However, no certainty on what NOC will be granted the opportunity to participate in this project. OGDCL has 29 oil and gas processing plants. These include dehydration, LPG, Sulfur Recovery, H2S Removal, Gas Sweetening, Condensate Stabilization, Refining and Compression Plants.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td></td>
<td>OGDCL has downstream natural gas and NGL sales.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>304%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>$0.35</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>$1.06</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>64%</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>46%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
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<td></td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>37%</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>79%</td>
<td></td>
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<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>3</td>
<td>The Ministry of Petroleum and Natural Resources is responsible for designing national policies for the development of the hydrocarbon industry taking into account the national needs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2007</td>
<td>3</td>
<td>The Ministry of Petroleum and Natural Resources, through the Oil and Gas Regulatory Authority has clearly defined the roles of policy and regulation, and specific assignments to NOCs in order to avoid conflicts of interests.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>The primary objective is to enhance its reserves and production profile. Accelerate production growth, exploit exploration opportunities, maintain low cost operations, pursue selective international expansion, and implement international best practice.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>8</td>
<td>Oil and gas revenues are detailed in the state budget. There is no special revenue management mechanisms for oil and gas revenue, that are treated as any other source of funding.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008, 2007</td>
<td>4, 5, 6</td>
<td>No participation in EITI or other transparency initiatives. Transparency International and National Democratic Institute both operate in Pakistan.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007</td>
<td>1</td>
<td>Fiscal regime allows sufficient capital investment for OGDCL to carry its activities. Gradual decline in Government of Pakistan (GoP) participation in E&amp;P activities. No GoP participation in onshore concessions under 2001 Petroleum Policy.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2007</td>
<td>2</td>
<td>The hydrocarbon sector fiscal regime, by offering tax and royalty payment incentives to oil companies, has favored the development of the domestic resource base.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007</td>
<td>1</td>
<td>Upstream investment is becoming more attractive to competition since the law has modified to invite and attract investors and IOCs to enhance exploration and production in Pakistan.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007</td>
<td>2</td>
<td>Existing contracts for upstream activities involve BP, ENI, OMV, OPI, Petronas and Tullow.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2007</td>
<td>2</td>
<td>The three national oil companies, OGDCL, PSO and PPL, operate under joint ventures and partnerships with various international oil companies and other domestic firms.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2007</td>
<td>1</td>
<td>Vertical Integration</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2007</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
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<td>Other Factors</td>
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<td>Change in company refinery throughput from international operations (%)</td>
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<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>1</td>
<td>Competitors in upstream activities are not required to include NOC as partner.</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>1</td>
<td>Competitors in mid and downstream activities are not required to include NOC as partner. Pakistan has 5 refineries with capacity just under 270,000 B/D. Domestic demand offsets domestic supply; therefore, Pakistan must import refined products. PSO leads Pakistan's fuel distribution market.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007</td>
<td>2</td>
<td>Major IOCs operating in Pakistan include BP, ENI, OMV (Austria), Orient Petroleum Inc (OPI Canada), Petronas (Malaysia) and Tullow (Ireland).</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2007</td>
<td>1</td>
<td>In response to conditions laid down by lenders like the International Monetary Fund and the World Bank, the government of Pakistan continues to strive for privatization of the three state-owned companies. The government has offered a 51% stake in PPL, 54% of PSO and has divested 15% of OGDCL.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007</td>
<td>1</td>
<td>OGDCL international operations vary depending on the opportunities abroad. Neither specific budget nor number of international operations is settled.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>Not listed</td>
<td>Not listed</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007, 2007</td>
<td>3, 2</td>
<td>There is no independent regulator for the upstream but the Oil &amp; Gas Regulatory Authority oversees midstream and downstream activities. Ministry of Petroleum and Natural Resources grants oil</td>
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<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2007</td>
<td>3</td>
<td>Competitive market pricing is a responsibility of the Oil and Gas Regulatory Authority in order to create a working environment where the interests of all stakeholders namely the consumer, investor and the government are protected through independent and fair regulatory practices.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2007</td>
<td>3</td>
<td>The Oil and Gas Regulatory Authority along with the Minister of Petroleum and Natural Resources are in charge of ensuring market transparency, quality of the goods and services and data information provided by the OGDCL.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2007</td>
<td>3</td>
<td>Oil and Gas Regulatory Authority is responsible for effectively addressing and resolving disputes related to mid and downstream activities, the Minister of Petroleum and Natural Resources is responsible to address and resolve disputes regarding upstream activities performed by the OGDCL.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2007</td>
<td>3</td>
<td>Fuel subsidies are actively used in Pakistan and a number of issues exist with regard to cost to government and transfers from OGDCL and other NOCs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2007</td>
<td>3</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>$188.47</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$1.61</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>$150.49</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Data is disclosed and audited by an international reliable firm.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2007</td>
<td>1</td>
<td>In 1961 the government of Pakistan signed a long-term loan agreement with Russia to finance equipment and services for exploration. Later, a number of donor agencies such as the World Bank, Canada International Development Agency and the Asian Development Bank, supported major development projects in forms of loans and grants which ultimately resulted in major oil and gas discoveries between 1968 and 1982. By 1989 the company began to operate with self generated funds. OGDCL not only generated internal funds to meet its debt obligations but also invested enough resources in exploration to increase the country's reserves and production. In 2003 disinvested 2.5% of its shareholdings and on December 2006 divested a further 10% of its holdings. The company is now listed in the London Stock Exchange.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2007</td>
<td>2</td>
<td>In the last few years oil and gas production in Pakistan has been very slowly growing. The country is dependent on oil imports to satisfy domestic demand. Demand for refined petroleum products has also exceeded domestic oil refinery capacity; nearly half of the oil imports are refined products. Fuel subsidies exacerbate downstream capacity constraints by discouraging efficiency and spurring demand growth. The government is planning to build a pipeline that spans from Iran's natural gas reserves to Indian markets; although there is still concern on the amount Iran will charge for the natural gas. A second gas import possibility is an eventual link to the Dolphin project in Qatar. This project would supply natural gas from Qatar to Pakistan. A key issue for Pakistan's hydrocarbon sector is how best to supply</td>
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<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>11,000</td>
<td>fuels for the critical generation capacity expansions that the country needs.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>7,875</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>26.62</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-31.10%</td>
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<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-4.59%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>376.80</td>
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<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>30,017.46</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>5,552.22</td>
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<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
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<td>Other Factors</td>
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<td>Company domestic BOE production as % of country BOE production</td>
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<td>Other Factors</td>
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<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>6.79%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.12%</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
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<td>65.22%</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>1</td>
<td>2007</td>
<td>OGDCL</td>
<td><a href="http://www.ogdcl.com">www.ogdcl.com</a></td>
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<td>2</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Pakistan</td>
<td><a href="http://www.eia.doe.gov">www.eia.doe.gov</a></td>
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<td>2008</td>
<td>EITI</td>
<td><a href="http://eitransparency.org/supporters/companies">http://eitransparency.org/supporters/companies</a></td>
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<td>Current</td>
<td>Transparency International - Pakistan</td>
<td><a href="http://www.transparency.org.pk/">http://www.transparency.org.pk/</a></td>
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The NOCs in Sub-Saharan Africa
Angola: Sonangol

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
Despite having the government as the sole shareholder, Sonangol has always been governed as a private company.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
After incorporation of Sonangol, a management committee was established to create necessary corporate infrastructure for developing business activities. This committee was later converted into a body called the Administration Council, consisting of 5 members (1 chairman, 4 VPs).

Independent Board Members
There are no independent board members. Normally the proposal for nomination comes from the Chairman, which should be validated by the Petroleum Minister and finally approved by the Council of Ministers (presided over by the President of Angola).

Is chairman also minister of energy or otherwise appointed by head of state?
The chairman is not the Minister of Energy. The council of Ministers (presided over by the President of Angola) appoints the BOD, including its chairman.

Operations Highlights

Upstream Oil
Solely in Angola. However, Sonangol has sought, and achieved, international equity positions in the LNG value chain.

Midstream Oil
Sonangol has subsidiaries in logistics (storage, etc.) and shipping.

Downstream Oil
JV partnerships exist for refineries, gas stations, lubes.

Upstream Natural Gas
Angola LNG (ALNG) will initiate operations with associated gas. Eventually, upstream gas will presumably work through JVs and PSAs using the same approach as upstream oil ventures.

Midstream Natural Gas
Sonangol is a JV partner in ALNG and has obtained an equity position in Gulf LNG, a receiving/regasification terminal under development by El Paso Corporation in Pascagoula, Mississippi.

Downstream Natural Gas
Not active at this time.

Other
Sonangol has a telecom subsidiary and shareholding positions in other non-oil companies, such as financial services, and food.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
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<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
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<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
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<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
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<td>Financial Performance Highlights (2004-2007; not all years or data reported)</td>
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<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
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<td>Consolidated Average Total Assets ($Millions)</td>
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<td>Consolidated Average EBIT ($Millions)</td>
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<td>Consolidated Average Net Income ($Millions)</td>
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Categorization Indicators

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<tr>
<td>Commercialization</td>
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<tr>
<td>Fiscal Regimes</td>
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<tr>
<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
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<td>Average</td>
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Worldwide Governance Indicators

Trends and Issues
Angola has been recovering from years of civil war. Oil and natural gas production are important resources for Angola’s economic development. Governance has been improving over the past few years, but the road is difficult. Further improvements in transparency and governance are needed for sustainable socio-economic development.
## Angola: Sonangol

### Database

<table>
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<tr>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>2</td>
<td>Sonangol is the sole concessionaire for oil exploration and production; part owner of refineries; and partner in Angola LNG.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>Sonangol was created in 1976 through the nationalization of ANGOL to carry out the prospecting, research, development, sales, production, transportation and the refining of hydrocarbons and their derivatives (directly or in association with foreign companies).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>Not listed</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
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<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>2</td>
<td>After incorporation of Sonangol, a management committee was established to create necessary corporate infrastructure for developing business activities. This committee was later converted into a body called the Administration Council, consisting of 5 members (1 chairman, 4 VPs).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>The chairman is not the Minister of Energy. The council of Ministers (presided over by the President of Angola) appoints the BOD, including its chairman.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>Normally the proposal for nomination comes from the Chairman, which should be validated by the Petroleum Minister and finally approved by the Council of Ministers (presided by the President of Angola).</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>BOD members serve 3-year appointments, possibly except the chairman. Indications are that appointments actually are for 4 years and renewable for another 4.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td>The BOD is the primary decision-making body in matters of overall strategy, and authorization for investment expenditures.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>It appears that the BOD has great authority.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>Key executives and Administration Council members are the same people; the Administration Council appears to be an Executive Management Team.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>Within Sonangol, the Administration Council is the primary decision-making body in matters of overall strategy and the authorization for investment expenditures. It also oversees corporate strategies regarding performance, rentability and international expansion.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>It appears that Sonangol has considerable autonomy, both in terms of budget process and decision making. Several sources, including the International Monetary Fund, have reported concerns over the lack of transparency in internal management processes, as well as in the financial transactions between the state and the NOC.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>Partnering is the &quot;modus operandi&quot; for Sonangol. JVs and PSAs are used in the upstream and partnerships in refineries.</td>
<td></td>
</tr>
<tr>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>2</td>
<td>&quot;Sonangol's prime objective is the prospecting, research, development, production, transportation, commercialization and transformation of liquid and gaseous hydrocarbons and their derivatives, including petrochemicals. The stated vision: Become an integrated and competitive company; maintain itself as a catalyst of national development; meet its responsibilities with the State, economic partners and society overall; become one of the key players in the African oil market; project itself as a prestigious entity within the international market.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2008</td>
<td>2</td>
<td>Sonangol appears to generate sufficient funding through its business operations. In addition, Sonangol acts as rent collector on behalf of the state.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>Company demographics and human resources are not publicly disclosed. However, manpower issues in Angola are reported by various sources as acute. Sonangol’s - and its international partners’ – efforts and investment to build a skilled Angolan workforce have been relatively successful, but the needs remain important.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008</td>
<td>2</td>
<td>&quot;Our commitment to sustainable development and the stability of Angola is the central premise of our philosophy. This commitment is visible in the annual budget set aside for investment in community projects.&quot;</td>
</tr>
<tr>
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</tbody>
</table>
| Corporate Governance | Full Disclosure and Measurement of Non-commercial Objectives | Based on available information, extent of non-commercial obligations | 2008 | 2 | "In pursuing its social objective, Sonangol can constitute new companies and acquire all or part of the capital of an established company. Whenever it obtains a totality or a majority of the voting capital of said companies, it will establish the coordination, economic and financial direction and the business development of the said company."
<p>| Value Creation Metrics | Operating Performance | Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources? | 2008 | 2 | Solely in Angola. However, Sonangol has sought, and achieved, international equity positions in the LNG value chain. |
| Value Creation Metrics | Operating Performance | Does the NOC operate abroad? | 2008 | 2 | No |
| Value Creation Metrics | Operating Performance | Midstream oil pipelines, storage, shipping | 2008 | 2 | Sonangol has subsidiaries in logistics (storage, etc.) and shipping. |
| Value Creation Metrics | Operating Performance | Downstream oil refining &amp; marketing, petrochemicals | 2008 | 2 | JV partnerships exist for refineries, gas stations, lubes. |
| Value Creation Metrics | Operating Performance | Upstream natural gas E&amp;P | 2008 | 2 | Angola LNG (ALNG) will initiate operations with associated gas. Eventually, upstream gas will presumably work through JVs and PSAs using the same approach as upstream oil ventures. |
| Value Creation Metrics | Operating Performance | Midstream natural gas pipelines, storage, LNG | 2008 | 2 | Sonangol is a JV partner in ALNG and has obtained an equity position in Gulf LNG, a receiving/regasification terminal under development by El Paso Corporation in Pascagoula, Mississippi. |
| Value Creation Metrics | Operating Performance | Downstream natural gas distribution, NGL sales, petrochemicals | | | Not active at this time. |
| Value Creation Metrics | Operating Performance | Other (power generation, etc) | 2008 | 2 | Sonangol’s non-oil activities include telecommunications, air transportation, banking and insurance, training, and shipping, etc. |
| Value Creation Metrics | Operating Performance | Avg reserve replacement rate (BOE, %) | | | No data |
| Value Creation Metrics | Operating Performance | Avg reserve replacement cost ($/BOE) | | | No data |</p>
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</thead>
<tbody>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining throughput (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
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<tr>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td>Sonangol is central to Angola's economic development strategy. It is the largest source of revenue for the government and provides subsidized fuel to government agencies. The company invests in social projects (education, housing, health, culture) and in other businesses (telecommunications, financial services, food and agriculture, shipping, air transportation, etc).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td></td>
<td>Angola’s policy of economic diversification envisions the separation of the regulatory and commercial roles – currently carried out by Sonangol. Many industry observers have raised concerns over the lack of clarity on oversight roles and responsibility, and the potential conflict of interests arising from Sonagol’s complex mandate.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td></td>
<td></td>
<td>Although the prime objective for Sonangol is stated to be an oil company, the social objective is a close second (if not actually the first). This is possibly a consequence of Angola’s reconstruction imperatives.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>Human resources are the biggest challenge in Angola, but Sonangol is one of the best staffed entities in the country. In addition, Sonangol provides target training to other government agencies in view of the transfer of certain of its functions to these entities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>Over the past few years, the government appears to have made some efforts towards public disclosure of revenue flows from extractive industry. However, overall transparency remains relatively low. There is no petroleum revenue fund in Angola – although according to financial observers the creation of a saving and stabilization fund is being considered.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td></td>
<td></td>
<td>Angola did not opt for the adoption of EITI principles and standards. A 2002 law allows the government to withhold information that may be considered to be against national security.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Yes. Production in Angola has doubled between 2003 and 2007. Success rates are high, leading to high investors’ interest and substantial signature bonuses.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>Sonangol is not traded and does not raise funds through increases in its share capital.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource</td>
<td></td>
<td></td>
<td>Yes. Success in offshore exploration led to an increase in proved reserves. The PSA terms appear to be attractive relative to country’s resource potential based on positive investor response to</td>
</tr>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>Angola’s bidding rounds.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Upstream is open; investors partner with Sonangol. Angola has a PSA and holds bidding rounds for awarding blocks.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>Sonangol is a JV partner in refineries and ALNG.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>Sonangol's partners manage turnkey contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>The preference of the company seems to be for both vertical and horizontal integration; this is consistent with the company's socioeconomic goals. As described before, the company has midstream and downstream assets and looks for other opportunities along the value chain.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Sonangol has offices in Houston, Congo, Hong Kong, Singapore and London but no apparent physical assets or investments (at present). Sonangol clearly has interest in how its production is marketed and sold abroad, and clearly wants to participate in order to add value to its revenue streams.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Competition is strong among international companies; partnership with Sonangol is required.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Not much competition. Refinery partnerships exist with Sonangol; distribution and marketing is mostly dominated by Sonangol subsidiaries. Angola's downstream market is too small to attract much IOC interest.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>JVs in Angola appear very successful as measured by increases in production, exports and continued investment.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008 2</td>
<td>Sonangol has offices in Houston, Congo, Hong Kong, Singapore and London but no apparent physical assets or investments (at present).</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008 2</td>
<td>Per above, Sonangol has certain business activities in telecoms, financial services and food.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2008 2</td>
<td>Currently, there is no separate regulator. Sonangol also acts as the regulator (bidding rounds, etc.).</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008 2</td>
<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2008</td>
<td>2</td>
<td>“Sonangol has the exclusive rights to oil and gas exploration and production in Angola - both onshore and offshore. The process of negotiating and granting oil concessions, as well as aftermath control, is the responsibility of Sonangol Holding.”</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>No independent HC regulation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No independent HC regulation. Disputes appear to be resolved at the executive level.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2008</td>
<td>2</td>
<td>Sonangol provides fuel at below market price to other government entities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2008</td>
<td>2</td>
<td>Indications are that socioeconomic development programs are part of Sonangol’s annual budget, reaching millions of dollars.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
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<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Sonangol makes available terms and conditions for bidding and participation, applicable laws, fiscal terms, bid packages. Transparency with respect to Sonangol's operations, especially financial data, and government revenue flows, is limited. A 2002 law empowers the government to keep data secret under the disguise of national security.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>Sonangol was established in 1976. Since then, its financial and operational strength and its political influence have been growing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Angola is still recovering from the civil war. Oil and natural gas production are important resource for the country’s economic development. Further improvements in transparency and governance will allow the country to sustainable socio-economic development.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>14.70</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>91.89%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>65.58%</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>9,035.00</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>1,620.00</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>9,314.31</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
<td>Unaudited</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
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<td>97.00%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>2,508.05%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
<th>Source Description</th>
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<tbody>
<tr>
<td>1</td>
<td>2008</td>
<td>USEIA Country Analysis Brief - Angola</td>
<td><a href="http://www.eia.doe.gov/emeu/international/contents.html">http://www.eia.doe.gov/emeu/international/contents.html</a></td>
</tr>
<tr>
<td>2</td>
<td>2008</td>
<td>Sonangol web site</td>
<td><a href="http://www.sonangol.co.ao">www.sonangol.co.ao</a></td>
</tr>
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<td>4</td>
<td>2008</td>
<td>USEIA International database</td>
<td><a href="http://www.eia.doe.gov/emeu/international/contents.html">http://www.eia.doe.gov/emeu/international/contents.html</a></td>
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</table>
## Cameroon: Société Nationale des Hydrocarbures (SNH)

### Summary Table

<table>
<thead>
<tr>
<th>Corporate Governance Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Organization and Ownership</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Shares Controlled by Government</strong></td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td><strong>Domestic, International Exchanges for Equity Listings</strong></td>
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<tr>
<td>Not listed</td>
</tr>
<tr>
<td><strong>Board of Directors Structure</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Independent Board Members</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Is chairman also minister of energy or otherwise appointed by head of state?</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream Oil</strong></td>
</tr>
<tr>
<td>SNH operates solely in country.</td>
</tr>
<tr>
<td><strong>Midstream Oil</strong></td>
</tr>
<tr>
<td>No. Cameroon Oil Trasportation Company (COTCO) is the owner of the Cameroon portion of the Chad-Cameroon Pipeline.</td>
</tr>
<tr>
<td><strong>Downstream Oil</strong></td>
</tr>
<tr>
<td>Societe Nationale de Rafinage (SONARA) is another NOC responsible for running the country's only refinery.</td>
</tr>
<tr>
<td><strong>Upstream Natural Gas</strong></td>
</tr>
<tr>
<td>Currently there is no non-associated gas production; associated gas is used for oil recovery and in-field power generation. In 2006, Perenco and SNH signed a 25-year PSA to develop the offshore Sanaga Sud natural gas fields; production will be used for power generation.</td>
</tr>
<tr>
<td><strong>Midstream Natural Gas</strong></td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>Downstream Natural Gas</strong></td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
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<td>No</td>
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</table>

<table>
<thead>
<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
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<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
</tr>
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<td>No data</td>
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</table>

<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues ($Millions)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Consolidated Average Total Assets ($Millions)</strong></td>
</tr>
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<td>No data</td>
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<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
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<td>No data</td>
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<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
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## Categorization Indicators

<table>
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<tr>
<th>Categories</th>
<th>Scores</th>
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<tr>
<td>Corporate Governance</td>
<td>44</td>
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<tr>
<td>Public Sector Governance</td>
<td>50</td>
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<tr>
<td>Commercialization</td>
<td>0</td>
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<tr>
<td>Fiscal Regimes</td>
<td>25</td>
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<tr>
<td>Resource Endowment</td>
<td>0</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>91</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>35</td>
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</tbody>
</table>

## Worldwide Governance Indicators

![Worldwide Governance Indicators](chart)

## Trends and Issues

Oil exports account for a quarter of fiscal revenues and 40-45% of export revenues but only 10% of Cameroon’s GDP. The constant decline of production over the last two decades has encouraged the government to progressively liberalize the sector in order to attract investments. The government is also actively exploring ways to reduce the dependence on oil. However, unless measures are introduced to improve the transparency, accountability, and independence of state institutions, Cameroon’s business environment is likely to remain challenging for foreign investors over the coming years.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Société Nationale des Hydrocarbures (SNH) for upstream and Société Nationale de Rafinage (SONARA) for refining.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>2</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td>Not listed</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td>Not traded</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td>Yes</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
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<td>No data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2008</td>
<td>3</td>
<td>Annual financial statements and production statistics are publicly available, and are locally audited. But the level of detail is not sufficient to have an understanding of the key performance indicators. By comparing annual statements over the years, it can be noted that capital investment requirements appear predictable, e.g., amounts needed for partnership activities.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>3</td>
<td>Yes, most operations are partnerships with international companies.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>3</td>
<td>To promote development of hydrocarbons in Cameroon and to manage the state's interests.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2008</td>
<td>4</td>
<td>&quot;Net&quot; revenue transfers from SNH to the Treasury are indicated in its annual accounts. SNH appears to have control over its cash flow for reinvestment and/or distribution to its shareholder.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008</td>
<td>4</td>
<td>SNH accounts are audited locally, certifications for which are available on company web site.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2008</td>
<td>3</td>
<td>283 employees, all Cameroonians.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008</td>
<td>3</td>
<td>SNH does not seem to have a specific focus on non-commercial activities.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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<tr>
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<td>-----------------------</td>
<td>-------------------</td>
<td>------------------------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>3</td>
<td>SNH operates solely in country.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>3</td>
<td>No.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>3</td>
<td>No midstream operations. Cameroon Oil Transportation Company (COTCO) is the owner of the Cameroon portion of the Chad-Cameroon Pipeline (CCP).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>Societe Nationale de Rafinage (SONARA) is another NOC responsible for running the country's only refinery.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>1</td>
<td>Currently there is no non-associated gas production; associated gas is used for oil recovery and in-field power generation. In 2006, Perenco and SNH signed a 25-year PSA to develop the offshore Sanaga Sud natural gas fields; production will be used for power generation.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>-1%</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>No data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2007, Current</td>
<td>2, 5</td>
<td>Information on the EITI web site indicates that some revenue data is being provided. EITI notes that, &quot;Although oil production in Cameroon declined during the 1990s, oil revenues still contributed 24% of government fiscal revenue, 50% of export earnings and</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2007, Current</td>
<td>2, 5</td>
<td>Cameroon is an EITI candidate country. In June 2005, a World Bank mission visited the country to identify potential EITI stakeholders. The Government created a multi-stakeholder Committee to implement the EITI. In September 2005, a second Bank mission and the EITI Committee drafted an Action Plan, which was adopted and published in major local newspapers. The Government started to publish past audits of SNH as part of an IMF monitored program. Transparency International maintains operations in Cameroon.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Cameroon has been a net exporter and offered new incentives in 1999 and 2002 to attract more investment and arrest decline in production with some success. Early 2007 bid round attracted new investmentm especially in the Rio del Rey basin. But many bids were unacceptable to SNH.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No data.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Most oil basins in Cameroon are already developed although SNH believes that there are still opportunities for smaller fields. The next stage may focus more on developing natural gas reserves (estimated at 3.9 TCF) for power generation.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007</td>
<td>1</td>
<td>Cameroon is a net exporter of oil but production has been declining. In 1999 and 2002, Cameroon offered new financial incentives and tax breaks to attract new third party investments. The first PSA was signed in 2005. New production by Total halted Cameroon's production decline, at least temporarily. Major players in both Chad and Cameroon include ExxonMobil, Chevron, Petronas, Total, Shell, and Perenco.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Negotiated contracts exist for upstream investment.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>SNH engages in PSAs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>Turnkey operations are managed by the IOC operators.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>There is no explicit strategy of integration. There is a separate company for refining, for example.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Yes, many of the largest IOCs operate and explore in Cameroon as well as smaller companies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>Relative to the size of its reserves and declining production over the years, a large number of companies are present in Cameroon and partner with SNH in upstream.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>SNH does not invest internationally.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>There is no independent HC regulator. SNH represents state's interests, and promotes development of HC resources in country.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>----------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2006 7</td>
<td></td>
<td>Subsidies exist, funded through SNH’s revenue contributions to the state. In 2005 Cameroon launched a program to reduce fuel subsidies with expectations of implementation in 2007. The goal is to reduce the burden of losses incurred in SONARA. It is not clear what progress has been made.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>SNH does not seem to sponsor such projects directly; revenues are transferred to the public treasury.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>2008 3</td>
<td></td>
<td>Locally audited financial reports are available at the SNH web site. However, these reports may not be consistent with international accounting standards.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>SNH has existed since 1980 and is likely to persist.</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2007</td>
<td>2</td>
<td>Oil exports account for a quarter of fiscal revenues and 40-45% of export revenues but only 10% of Cameroon’s GDP. The constant decline of production over the last two decades has encouraged the government to progressively liberalize the sector in order to attract investments. The government is also actively exploring ways to reduce the dependence on oil. However, unless measures are introduced to improve the transparency, accountability, and independence of state institutions, Cameroon’s business environment is likely to remain challenging for foreign investors over the coming years.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Factors</th>
<th>Non-commercial Objectives</th>
<th>Number of employees</th>
<th>283</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>71,567</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>35.83</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>34.68%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>9.28%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>400.00</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>3,900.00</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>1,072.41</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
</tr>
<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

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<tr>
<td>1</td>
<td>2008</td>
<td>USEIA Country Analysis Brief - Chad and Cameroon</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Chad_Cameroon/Oil.html">http://www.eia.doe.gov/emeu/cabs/Chad_Cameroon/Oil.html</a></td>
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<td>2</td>
<td>2007</td>
<td>EITI - Cameroon</td>
<td><a href="http://eitransparency.org/Cameroon">http://eitransparency.org/Cameroon</a></td>
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<td>3</td>
<td>2008</td>
<td>SNH web site</td>
<td><a href="http://www.snh.cm/">http://www.snh.cm/</a></td>
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<td>9</td>
<td>2008</td>
<td>USEIA International database</td>
<td>[<a href="http://www.eia.doe.gov/emeu/international/contents.htm">http://www.eia.doe.gov/emeu/international/contents.htm</a> l](<a href="http://www.eia.doe.gov/emeu/international/contents.htm">http://www.eia.doe.gov/emeu/international/contents.htm</a> l)</td>
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</table>
# Chad: Société des Hydrocarbures du Tchad (SHT)

## Summary Report

### Corporate Governance Highlights

#### Corporate Organization and Ownership

SHT was created in 2006. The company is wholly owned by the government. By the end of 2007 the by-laws of the company were still under preparation.

#### Shares Controlled by Government

100%

#### Domestic, International Exchanges for Equity Listings

Not listed

#### Board of Directors Structure

No data

#### Independent Board Members

No data

Is chairman also minister of energy or otherwise appointed by head of state?

No data

### Operations Highlights

#### Upstream Oil

Upstream investments are made by foreign companies. Recently the government announced its desire to participate in exploration and production activities through the NOC. No details have been disclosed on actual or planned participation.

#### Midstream Oil

Tchad Oil Transportation Company (TOTCO) and Cameroon Oil Transportation Company (COTCO) are the operators for the Chad-Cameroon Pipeline (CCP). The government has a minority stake in both. SHT has no stake in TOTCO and/or COTCO.

#### Downstream Oil

The government, through the SHT, has a 40 percent stake in a refinery project operated by CNPC.

#### Upstream Natural Gas

No

#### Midstream Natural Gas

No

#### Downstream Natural Gas

No

#### Other

No

### Operations Performance Highlights (2004-2007; not all years or data reported)

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<table>
<thead>
<tr>
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<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
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### Financial Performance Highlights (2004-2007; not all years or data reported)

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<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
<td>No data</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
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</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
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<tr>
<td>Consolidated Average Net Income ($Millions)</td>
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Categorization Indicators

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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
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<td>Commercialization</td>
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<td>Fiscal Regimes</td>
<td>25</td>
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<td>Resource Endowment</td>
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<td>Oil Dependency</td>
<td>0</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>67</td>
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<tr>
<td>Average</td>
<td>18</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

Chad is still a frontier area for petroleum exploration. Improvements in the legal and fiscal framework, as well as the institutional environment will need to be made in order to attract foreign investors, especially given the deterioration in security and political environment. The lack of certainty of rights may affect the pace of exploration and development investments, with medium and long-term effects on the level of revenue and negative consequences on fiscal sustainability. The World Bank assisted development program for the Chad-Cameroon pipeline represented a unique attempt to manage exploitation of oil resources in a politically and geopolitically troubled country. Its withdrawal from the pipeline project, announced in September 2008, as a result of the government’s failure to implement agreed poverty reduction measures may affect the investment environment and the sustainability of sector reforms.
Chad: Société des Hydrocarbures du Tchad (SHT)

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006 2007</td>
<td>9 1</td>
<td>Société des Hydrocarbures du Tchad (SHT) was founded in 2006.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
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<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>Not listed</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>Not traded</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
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<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
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<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
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<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>The SHT was created in 2006. However, it was only by the end of 2007 that the government started to address its organization. No information has been made publicly available. But given the</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>importance of the petroleum sector as source of revenue for Chad, government intervention in SHT’s decision making process is likely to be considerable.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>7</td>
<td>Yes. SHT already has a joint venture with CNPC to build and operate a refinery.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2007, 2006</td>
<td>1,4,9</td>
<td>SHT was organized by the government to manage Chad's interests in hydrocarbon operations and partner on all petroleum contracts and agreements.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
<td>SHT operates only in Chad. No disclosure on SHT's participation in upstream investments to date.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td></td>
<td>Tchad Oil Transportation Company (TOTCO) and Cameroon Oil Transportation Company (COTCO) are the operators for the Chad-Cameroon Pipeline (CCP).</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>7 SHT has a 40 percent share in a joint venture with CNPC to build and operate a refinery, which is expected to begin operation in 2011.</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>8 Chad is not known to possess any natural gas reserves. Due to its lack of reserves and infrastructure, Chad has no plans to develop a gas industry at the present time.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td></td>
<td>No</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td></td>
<td>No</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<tr>
<td>Value Creation</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
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<tr>
<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<tr>
<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<tr>
<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<tr>
<td>Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<tr>
<td>Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<td>Metrics</td>
<td>Financial Performance</td>
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<td>Avg reinvestment risk (%)</td>
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<td>Metrics</td>
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<td>Avg debt profile (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>1,10 The contribution of the petroleum sector to the country’s economic development is recognized in the revenue management law 001/PR/99 (11 January 1999) as amended and implementing regulations (Decree 257/PR/MFI/07). The petroleum sector policy is however not publicly available.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>3 Law 01/PR/99 as amended and its implementing regulations provides for the transparent accumulation and use of oil revenue. Since the World Bank announced its withdrawal from the CCP in 2008, oil revenue and their use have not been published by the World Bank, the government, and the Collège de Contrôle et de Surveillance des Ressources Pétrolières (a mixed government and civil society body entrusted with the oversight of petroleum.</td>
<td></td>
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<tr>
<td>Indicator Category</td>
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<td>----------------------------------------------------------------------------------------</td>
<td>------------------------</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>2008</td>
<td>11</td>
<td>In 2006 Chad elected to participate in EITI. Implementing regulation was passed in October 2007, and a multi-stakeholders group was appointed. However Chad has yet to obtain candidate status.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>2006</td>
<td>5</td>
<td>Two IOCs and two NOCs hold petroleum exploration and production rights in Chad. The fiscal regime is linked to project profitability, and should favor the development of large and marginal fields alike. Nevertheless, industry interest appears to be low. Political instability and the lack of certainty of contractual rights (frequent contract renegotiation) may help to explain this.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td></td>
<td></td>
<td>The fiscal regime is linked to project profitability, and should favor the development of large and marginal fields alike.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>2007, 2006</td>
<td>1,4</td>
<td>&quot;The Petroleum Revenue Management Law (law No. 001/PR/99 of 1999) and amendments, such as law No. 002/PR/06 of 2006, defined the allocation of petroleum revenues. In 2000, the Chadian government revised its Petroleum Code. The revision allowed for production sharing agreements (PSAs) between foreign companies and the Chadian government. In addition, the government made the investment climate more attractive by reducing the corporate income tax rate from 50 percent to 45 percent. Further amendments to the Petroleum Code were under consideration in 2006.&quot;</td>
<td></td>
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</tbody>
</table>

Indicator (Query)

revenues).
<table>
<thead>
<tr>
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<th>Indicator Description</th>
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<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007</td>
<td>1</td>
<td>&quot;Via SHT, Chad wants to control 60 percent of the country’s oil sector. In August 2006, Chad’s Oil Minister announced the possibility of revising a previous agreement with the CCPDP consortium to add SHT as the fourth member. Also in August, the government accused Petronas and Chevron of not paying enough oil-profit tax due to a tax advantage agreement signed in 2000. The companies, which together control 60% of Chad’s oil sector, are partners in the CCPDP with Exxon. After concluding negotiations, the two companies agreed in October 2006, to pay outstanding taxes for 2005 and 2006 totaling $289 million.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>Joint venture between SHT and CNPC for building and operating a refinery. No information available on SHT upstream participation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>With the new refinery under construction, SHT will have participation in upstream and downstream.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>Two IOCs hold petroleum rights in the Doba development in Chad. No information available on new entrants.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>According to some industry observers, the SHT may be required to be a partner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>The main midstream asset is CCP, structured as a public-private partnership.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>Not applicable.</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2006 9 The regulatory functions are carried out by the relevant sector ministries. SHT does not have regulatory functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>No data.</td>
<td></td>
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<tr>
<td>Indicator Category</td>
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<td>----------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>Local press has reported several labor and tax related disputes. However, major disputes appear to be regulated out of court between the President of Chad and investors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>Fuel subsidies are provided by the government through its utility company.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data.</td>
<td></td>
<td></td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Very little information is provided by the government of Chad. No web sites exist for SHT or government bodies in the energy sector.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>SHT was founded July 2006.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Chad is still a frontier area for petroleum exploration. Improvements in the legal and fiscal framework, as well as the institutional environment will need to be made in order to attract foreign investors, especially given the deterioration in security and political environment. The lack of certainty of rights may affect the pace of exploration and development investments, with</td>
<td></td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>No data.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>17.2</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>No data.</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>No data.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>900.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>900.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
</tbody>
</table>

medium and long-term effects on the level of revenue and negative consequences on fiscal sustainability. The World Bank assisted development program for the Chad-Cameroon pipeline represented a unique attempt to manage exploitation of oil resources in a politically and geopolitically troubled country. Its withdrawal from the pipeline project, announced in September 2008, as a result of the government’s failure to implement agreed poverty reduction measures may affect the investment environment and the sustainability of sector reforms.
<table>
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<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
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<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
<td></td>
<td>7,178.08%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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</table>
## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
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<th>Source Description</th>
<th>Links</th>
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<tbody>
<tr>
<td>1</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Chad and Cameroon</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Chad_Cameroon/Oil.html">http://www.eia.doe.gov/emeu/cabs/Chad_Cameroon/Oil.html</a></td>
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<tr>
<td>2</td>
<td>2008</td>
<td>Chad/Cameroon Development Project</td>
<td><a href="http://www.esso.com/Chad-English/PA/TA_HomePage.asp">http://www.esso.com/Chad-English/PA/TA_HomePage.asp</a></td>
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<tr>
<td>6</td>
<td>2008</td>
<td>USEIA International database</td>
<td><a href="http://www.eia.doe.gov/emeu/international/contents.html">http://www.eia.doe.gov/emeu/international/contents.html</a></td>
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<tr>
<td>8</td>
<td>2008</td>
<td>Mbendi – Chad Oil and Gas</td>
<td><a href="http://www.mbendi.co.za/indy/oilg/af/ch/p0005.htm">http://www.mbendi.co.za/indy/oilg/af/ch/p0005.htm</a></td>
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<tr>
<td>9</td>
<td>2006</td>
<td>Journal Officiel de la Republique du Tchad – Août 2006</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2008</td>
<td>CEFOD</td>
<td><a href="http://www.cefod.org">http://www.cefod.org</a></td>
</tr>
</tbody>
</table>
Congo (Brazzaville): Societe Nationale des Petroles du Congo (SNPC)

Summary Report

**Corporate Governance Highlights**

<table>
<thead>
<tr>
<th>Corporate Organization and Ownership</th>
<th>Societe Nationale des Petroles du Congo (SNPC) is one of SNPC Group's subsidiary/affiliated companies. SNPC oversees offshore and onshore oil exploration and production.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares Controlled by Government</td>
<td>100% government owned.</td>
</tr>
<tr>
<td>Domestic, International Exchanges for Equity Listings</td>
<td>None</td>
</tr>
<tr>
<td>Board of Directors Structure</td>
<td>The existence of a BOD was acknowledged in the Action Plan for Implementation of SNPC’s Audit Recommendations overseen by KPMG.</td>
</tr>
<tr>
<td>Independent Board Members</td>
<td>Unknown</td>
</tr>
<tr>
<td>Is chairman also minister of energy or otherwise appointed by head of state?</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

**Operations Highlights**

**Upstream Oil**

SNPC is involved via PSAs with non-NOC participants in all oil upstream activities. The majority of reserves are offshore accounting for 80% of production. Proven oil reserves increased from 1.5 million barrels in 2005 to 1.6 million barrels in 2007. Total’s activity accounts for approximately 47% of Congo's oil production and ENI’s accounts for 22%. Approximately 33% of total production corresponds to the government’s share, and it is sold by SNPC on behalf of the state. Total is expected to bring online an offshore field in 2008 that will produce 90,000 B/D. In 2004 Chevron announced a significant discovery in the Common Interest Zone between Congo and Angola. Commercial production is not expected until 2012. Congo and Angola will share revenues equally.

**Midstream Oil**

There is one 71 kilometer oil pipeline. SNPC does not operate in this sector.

**Downstream Oil**

There is one 21,000 B/D refinery which is operated by a SNPC Group company CORAF. It operates at less than 50% capacity with prolonged periods of inactivity. In 2002, Hydro-Congo, a SNPC Group company, Chevron, Total and Tacoma/Puma-Energy (UK) formed a joint venture (SCLOG) to transport oil products in the country. There are about 100 service stations (affiliated with the SNPC Group) that also sell LPG.

**Upstream Natural Gas**

Most of Congo's natural gas reserves are associated gas. However, the country does not produce or consume gas due lack of proper production infrastructure. Congo does flare gas. The government would like to use gas for power generation.

**Midstream Natural Gas**

There is one 62 kilometer gas pipeline. SNPC does not operate in this sector.

**Downstream Natural Gas**

This sector does not exist in the Congo.

**Other**

None.

**Operations Performance Highlights (2004-2007; not all years or data reported)**

<table>
<thead>
<tr>
<th>Operations Performance Highlight</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>31</td>
</tr>
<tr>
<td>Upstream: Average Annual Proved Gas Production (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>4</td>
</tr>
</tbody>
</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

Consolidated Average Total Revenues ($Millions)       No data
Consolidated Average Total Assets ($Millions)         No data
Consolidated Average EBIT ($Millions)                No data
Consolidated Average Net Income ($Millions)          No data

Categorization Indicators

Categories:                                             Scores:
Corporate Governance                                    34
Public Sector Governance                                 39
Commercialization                                       33
Fiscal Regimes                                           38
Resource Endowment                                      0
Oil Dependency                                          42
Local Contribution                                      0
Sector and Trade Openness                               58
Average                                                  31

Worldwide Governance Indicators

Trends and Issues

The petroleum sector is expected to remain the driver of Congo's economy for the immediate future. However, without the development of additional oilfields, national production of crude oil is expected to peak in 2010, and decline thereafter as older fields become depleted. The key challenge for the government is to prepare for post-oil era, while at the same time encourage further investment in the oil sector. Improving corporate governance, efficiency, and transparency of the state-owned companies would be essential in view of declining production.
## Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2006</td>
<td>1, 3</td>
<td>9 The Société Nationale des Pétroles du Congo (SNPC) is state-owned company entrusted with the management of the Government’s interest in petroleum and natural gas. Subsidiaries of SNPC include: Congolaise de Raffinage (CORAF), which operates the country’s sole petroleum refinery; Société Nationale de Recherche et d’Exploration Pétrolière (SONAREP), which is SNPC’s operations (exploration and production) company; COTRADE, the crude oil marketing arm; Financière et Investissement du Congo (FININCO), the financial arm; SNPC Raffinage et Distribution (SNPC RD); Immobilière du Congo (IDC), and Integrated Logistic Services (INTEL’S), a provider of logistic services to the oil sector).</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2006</td>
<td>1, 3</td>
<td>11 SNPC was formed in 1998 to manage the Government’s interest in petroleum and natural gas.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2006</td>
<td>1, 3</td>
<td>SNPC was formed in 1998 to manage the Government’s interest in petroleum and natural gas.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2006</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2006</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2006</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2004</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>9</td>
<td>SNPC is fully incorporated and has a BOD.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>9</td>
<td>“The BOD comprises 10 members, of which 4 with consultative role. The members of the Board are representatives of the Government, chosen for their expertise and competence.”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>9</td>
<td>Appointed by Presidential Decree.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>9</td>
<td>No independent Board member.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td>9</td>
<td>SNPC is engaged in the exploration, production, refining, transportation, and marketing of crude oil and petroleum products. The company aims to become operator.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008</td>
<td>9</td>
<td>“The BOD is the ultimate decision making body of the company, except in cases where the strategic nature of the decision requires the approval of the Government (i.e. the definition of SNPC’s strategy and policy, the approval of SNPC’s financial statements, the sale of assets, the obtaining of loans, and the change of its statutes).”</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td>2008</td>
<td>9</td>
<td>Appointed by the Government. No data is provided on the process of appointment.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2008</td>
<td>9, 1</td>
<td>SNPC appears to have considerable budget autonomy. The dividend policy, if any, is not publicly disclosed. SNPC is responsible for the sale of the government share of production. The proceeds of sale, determined on the basis of a fiscal price as opposed to a market price, are transferred to the Treasury.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2007</td>
<td>3, 5</td>
<td>SNPC must be a party to all oil production and exploration activities in the Congo. It develops production sharing agreements (PSAs) with non-NOC participants in the upstream sector. SNPC’s interests in the PSAs range from 9-49%.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008 1</td>
<td>SNPC financial data through 2005 which is overseen by KPMG is available on the website of the Ministry of Finance and budget. The Ministry also publishes a series of diagnostics carried out by KPMG on the Congolese oil sector, including a strategic assessment of Congo’s petroleum commercialization strategy.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>2008 9</td>
<td></td>
<td>There appears to be 501 employees in SNPC’s Group, of which 169 at SNPC’s Holding. There is no information on the composition and skill level.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008 9</td>
<td>In 2002 SNPC established a Foundation whose mission is to carry out projects of public interest in the fields of health, education, culture, sport and vocational training. The Foundation’s additional objective is to fight poverty and inequality, and in general terms, to improve the living standards of Congolese citizens in urban settings and villages.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008 9</td>
<td>In 2006 the Foundation had a budget of approximately US$2.4 million.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2007 3, 5, 2</td>
<td>SNPC is involved via PSAs with non-NOC participants in all oil upstream activities. The majority of reserves are offshore accounting for 80% of production. Proven oil reserves increased from 1.5 million barrels in 2005 to 1.6 million barrels in 2007. Total’s activity accounts for approximately</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2007</td>
<td>3</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2007-2008</td>
<td>3, 6</td>
<td>There is one 71 kilometer oil pipeline. SNPC does not operate in this sector.</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2007</td>
<td>1, 3</td>
<td>There is one 21,000 B/D refinery which is operated by an affiliate of SNPC, CORAF. CORAF’s nameplate capacity has been reported to be well in excess of its utilization rate. In 2002, Hydro-Congo, a SNPC Group company, Chevron, Total and Tacoma/Puma-Energy (UK) formed a joint venture (SCLOG) to transport oil products in the country. There are about 100 service stations (affiliated with the SNPC Group) that also sell LPG.</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2007</td>
<td>3</td>
<td>Most of Congo’s natural gas reserves are associated gas. However, the country does not produce or consume gas due lack of proper production infrastructure. Congo does flare gas. The government would like to use gas for power generation.</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2007-2008</td>
<td>3, 6</td>
<td>There is one 62 kilometer gas pipeline. SNPC does not operate in this sector.</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2007</td>
<td>3</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2006</td>
<td>1</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2007</td>
<td>5</td>
<td>The petroleum sector is governed by the Code des Hydrocarbures (law No. 24-1994) and implementing regulations. There is no publicly available hydrocarbons sector policy, and the prioritization of sectoral objectives and their link with macro-economic objectives is not publicly disclosed.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2007</td>
<td>3, 5, 7</td>
<td>There is a Ministry of Hydrocarbons. Its role appears to be limited to policy making while regulatory and commercial functions in the upstream sector are carried out by SNPC.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>1</td>
<td>Petroleum revenues received by the State are detailed in the state budget. In addition, the Ministry of Economy, Finance and Budget publishes quarterly audited statements of petroleum revenue received by the Government. Excess oil revenue is deposited at the regional central bank (BEAC) for saving and stabilization purposes. The operations of the Fund are not publicly available.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>7</td>
<td>The Congo became EITI Candidate Country in February 2008. It had been intending to join in June 2004 but it wasn't until October 2007 that real progress was made. EITI implementation is governed by a 24 member Executive Committee under the authority of the Ministry of Finance. 6 members represent civil society, six the industry and 13 the government. Congo must complete validation by 3/9/10. Other transparency programs do not operate in Congo.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2007</td>
<td>3</td>
<td>There is significant investor interest in the oil upstream sector. Oil production declined between 2000 and 2004, and again in 2007 after 2 years of increase in 2005-06. It is difficult to judge to what extent a more progressive fiscal regime could have helped to attract new investment, or additional investment in existing and maturing fields.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2007, 2007</td>
<td>3, 5</td>
<td>Hydrocarbon Law No.24-1994 clearly defines the institutional responsibilities, and the conditions for access to hydrocarbons. The law is sufficiently flexible to accommodate special investment conditions. The country has attracted some investment. USEIA has attributed rising oil production (05-06) to these investments. There is an ongoing project with KPMG (Transparency and Governance Project) to reach international best practices in management of the hydrocarbon sector. The country’s investment frameworks are evolving.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2007</td>
<td>3</td>
<td>There are numerous PSAs between SNPC and other companies in the oil upstream sector.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2007</td>
<td>3</td>
<td>SNPC participates in one joint venture in oil products transportation.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2008</td>
<td>9</td>
<td>SNPC operates in the upstream oil sector and other industries.</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006</td>
<td>3</td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2006 3 No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007 3</td>
<td>Non-NOCs account for approximately 69% of Congo's oil production.</td>
<td></td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007 3</td>
<td>Non-NOCs must participate in a PSA with SNPC.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007 3</td>
<td>Joint venture in oil product transportation and oil industry logistics.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2007 3</td>
<td>Prevalent upstream PSAs which appear to be successful.</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2007 3</td>
<td>None</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2007 3</td>
<td>None</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>2007-2008 1, 3</td>
<td>None</td>
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<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2007</td>
<td>5</td>
<td>The upstream regulatory function is performed by SNPC. There is no mention of other regulators.</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2006</td>
<td>5</td>
<td>SNPC negotiates PSAs with third parties.</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2008</td>
<td>1</td>
<td>The government is working to improve data quality and timeliness, transparency and disclosure. This is an ongoing process.</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
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### Congo (Brazzaville): Societe Nationale des Petroles du Congo (SNPC)

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<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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<tbody>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td></td>
<td>Extremely limited. The government is making efforts to improve.</td>
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<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>SNPC was established in 1998 to oversee the government's participation in commercial oil upstream activities.</td>
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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>2007-2008</td>
<td>1, 5, 7</td>
<td>The petroleum sector is expected to remain the driver of Congo's economy for the immediate future. However, without the development of additional oilfields, national production of crude oil is expected to peak in 2010, and decline thereafter as older fields become depleted. The key challenge for the government is to prepare for post-oil era, while at the same time encourage further investment in the oil sector. Improving corporate governance, efficiency, and transparency of the state-owned companies would be essential in view of declining production.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
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<td></td>
<td>31,120</td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
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<td>1,106</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
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<td>30.73</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td></td>
<td>56.63%</td>
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<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td></td>
<td>57.62%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
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<td>1,940.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
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<td>3,200.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>2,491.72</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
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<td>Unaudited</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Company domestic reserves as % of country BOE reserves</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Company domestic BOE production as % of country BOE production</td>
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<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>100%</td>
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<td>Other Factors</td>
<td>Operating Conditions Company refinery throughput as % of total country refinery throughput</td>
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<td>Other Factors</td>
<td>Operating Conditions Country oil/natural gas split, reserves (%)</td>
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<td>77.86%</td>
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<td>Operating Conditions Country oil/natural gas split, production (%)</td>
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<td>100.00%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Country BOE production as % of total country BOE consumption</td>
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<td>3,702.11%</td>
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<td>Other Factors</td>
<td>Trade Openness WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition OPEC Membership</td>
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## Sources of Information

<table>
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<tr>
<td>1</td>
<td>2008</td>
<td>Ministry of Economy, Finance &amp; Budget.</td>
<td><a href="http://www.mefb-cg.org">www.mefb-cg.org</a></td>
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<td>WTO</td>
<td><a href="http://www.wto.org">www.wto.org</a></td>
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<td>EITI</td>
<td><a href="http://www.eitransparency.org">www.eitransparency.org</a></td>
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Côte d'Ivoire: Société Nationale d'Operations Pétrolières de la Côte d'Ivoire (PETROCI)

Summary Report

Corporate Governance Highlights

**Corporate Organization and Ownership**
Corporation; incorporated in Cote d'Ivoire; 20 billion CFA francs capital; 5% owned by employees.

**Shares Controlled by Government**
95%

**Domestic, International Exchanges for Equity Listings**
No data

**Board of Directors Structure**
No data

**Independent Board Members**
Members are appointed by ministerial decree

**Is chairman also minister of energy or otherwise appointed by head of state?**
No data

Operations Highlights

**Upstream Oil**
Operates solely in the country; has sole access to resources and manages state interests through PSAs with third parties.

**Midstream Oil**
Oil terminal with 30,000 mt of capacity

**Downstream Oil**
Transportation and some marketing of oil products; bunkering operations (JV); 20 gas stations.

**Upstream Natural Gas**
No data

**Midstream Natural Gas**
Plans to enter the midstream

**Downstream Natural Gas**
Mini distribution network of 4 km; 3 industrial customers; small LPG plant (73,000 mt in 2003).

**Other**
Small-scale gas-fired power generation

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>8</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
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<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

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<td>Consolidated Average Total Revenues</td>
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<tr>
<td>Consolidated Average Total Assets</td>
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<td>Consolidated Average EBIT</td>
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<td>Consolidated Average Net Income</td>
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Côte d'Ivoire: Société Nationale d'Operations Pétrolières de la Côte d'Ivoire (PETROCI)

Categorization Indicators

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<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
<td>49</td>
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<td>Commercialization</td>
<td>50</td>
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<tr>
<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<td>Oil Dependency</td>
<td>95</td>
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<td>Local Contribution</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>58</td>
</tr>
<tr>
<td>Average</td>
<td>48</td>
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</table>

Worldwide Governance Indicators

Trends and Issues

Notwithstanding the high level of oil prices, the country has been relatively less successful than its neighbors in attracting sizeable investment for the development of its deep-offshore potential, and the monetization of its gas reserves. In 2007 oil exports represented 28 percent of the governments export revenues: a substantial growth since 2001. In 2006 the oil revenue surpassed for the first time cocoa and coffee, the country’s traditional export commodities. The high level of oil prices helped to achieve this result. Côte d’Ivoire relies on oil, natural gas and hydropower to satisfy internal energy demand. The majority of Côte d’Ivoire’s electricity is generated through natural gas-powered stations with hydroelectricity accounting for around 20 percent. According to Government’s official data, at the end of 2007, Côte d’Ivoire had 1,915 BCF of proved gas reserves (approximately 70 percent of the gas originally in place). Developing this potential would be an important contribution to the country’s efforts to promote economic diversification, fiscal sustainability, and energy security.
### Database

<table>
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<th>Indicator Description</th>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Société Nationale d'Operations Pétrolières de la Côte d'Ivoire (Petroci) is primarily engaged in oil and gas exploration and production. Refining activities are carried out by Société Ivoirienne de Raffinage (SIR) – Abidjan, Société Multinationale des Bitumes (SMB).</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1</td>
<td>Corporation; incorporated in Cote d'Ivoire; 20 billion CFA francs capital; 5% owned by employees.</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
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<td>95%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
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<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td></td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>1</td>
<td>Members are appointed by ministerial decree</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2008</td>
<td>1</td>
<td>For three years renewable</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
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<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>It appears that the Ministry of Mines and Energy prevails with respect to budget authority</td>
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<td>Indicator Category</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
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<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
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<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
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<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>&quot;Research and exploration of hydrocarbon deposits and all annexes and related substances&quot;; &quot;Building a diversified and integrated oil economy, while optimizing efforts in research and exploitation of hydrocarbon resources&quot;</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>No data</td>
<td>Operates solely in the country; has sole access and manages state interests in PSAs.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>1 Oil terminal with 30,000 ton of capacity</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>1 Transportation and some marketing of oil products; bunkering operations (JV); 20 gas stations.</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>Plans to enter the midstream</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>1 Mini distribution network of 4 km; 3 industrial customers; small LPG plant (73,000 ton in 2003).</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>1 Small-scale gas-fired power generation</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Metrics</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>1</td>
<td>Roles of the Ministry of Mines and Energy and NOCs are clearly defined. The ministry has more policy and regulatory functions, approving and overseeing activities of non-state oil and gas companies. PETROCI is responsible for commercial operations.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Some objectives identified: Research and exploration for hydrocarbon deposits and all related resources; Production, transportation, storage and distribution of such products and by-products;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
<td>Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>5,6</td>
<td>Côte d'Ivoire is a candidate country for EITI, just accomplished in May 2008, with 2010 as the deadline for implementation. National Democratic Institute also operates in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Internal strife heavily impacted what had been a robust hydrocarbon regime and the level of activity should be higher given the country's resource endowments. Fiscal regime is insensitive to oil price. Incentives to gas exploration and production may be needed to support the development of untapped reserves.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>No investment grade NOC credit rating issued. Major source of external financing is promissory notes.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>See above.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>PSAs.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>Vertical integration</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>On PSA basis</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>No formal requirement to include NOC as partner but it typically has an interest ranging from 20% to 45%.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>No competition</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008 1</td>
<td>Most JV’s ceased operations after unsuccessful exploration results.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>5% owned by employees</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td></td>
<td>Ministry of Mines and Energy acts as a regulator</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td></td>
<td>Ministry acts as a regulator</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Petroci was created in 1975 and is likely to persist.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>Notwithstanding the high level of oil prices, the country has been relatively less successful than its neighbors in attracting sizeable investment for the development of its deep-offshore potential, and the monetization of its gas reserves. In 2007 oil exports represented 28 percent of the governments export revenues: a substantial growth since 2001. In 2006 the oil revenue surpassed for the first time cocoa and coffee, the country’s traditional export commodities. The high level of oil prices helped to achieve this result. Côte d'Ivoire relies on oil, natural gas and hydropower to satisfy internal energy demand. The majority of Côte d'Ivoire’s electricity is generated through natural gas-powered stations with hydroelectricity accounting for around 20 percent. According to Government’s official data, at the end of 2007, Côte d'Ivoire had 1,915 BCF of proved gas reserves (approximately 70 percent of the gas originally in place). Developing this potential would be an important contribution to the country’s efforts to promote economic diversification, fiscal sustainability, and energy security.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>14.50</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>0.10</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>0.05</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>250.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>958.75</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>0.60</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>1.00</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>1.64</td>
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<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<td>1</td>
<td>2008</td>
<td>Company web-site (fr)</td>
<td><a href="http://www.petroci.ci">www.petroci.ci</a></td>
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<td>5</td>
<td>2008</td>
<td>EITI - Cd'I</td>
<td><a href="http://eitransparency.org/CoteDivoire">http://eitransparency.org/CoteDivoire</a></td>
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</table>
Equatorial Guinea: GEPetrol

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
Established as NOC by presidential decree in February 2001.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
No information is provided other than that a BOD exists above the national directorate of GEPetrol.

Independent Board Members
No data

Is chairman also minister of energy or otherwise appointed by head of state?
No data

Operations Highlights

Upstream Oil
GEPetrol only operates in its home country.

Midstream Oil
GEPetrol is a JV partner in the new Luba port project, a deepwater port to provide logistics services to the oil industry.

Downstream Oil
No refining by GEPetrol; very small market.

Upstream Natural Gas
GEPetrol’s portfolio includes upstream natural gas.

Midstream Natural Gas
Sonagas, another NOC, is the partner in the EGLNG project.

Downstream Natural Gas
Sonagas participates in methanol and LPG production.

Other
GEPetrol and Sonagas are not involved in other activities.

Operations Performance Highlights (2004-2007; not all years or data reported)

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<thead>
<tr>
<th>Category</th>
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<td>Upstream</td>
<td>Average Proved Oil Reserves (MM Barrels)</td>
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<td>Upstream</td>
<td>Average Proved Gas Reserves (BCF)</td>
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<td>Upstream</td>
<td>Average Annual Oil Production (MM Barrels)</td>
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<td>Upstream</td>
<td>Average Annual Natural Gas Production (BCF)</td>
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<td>Downstream</td>
<td>Average Annual Refinery Production (MM Barrels)</td>
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Financial Performance Highlights (2004-2007; not all years or data reported)

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<td>Public Sector Governance</td>
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<td>Commercialization</td>
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<td>Fiscal Regimes</td>
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<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
<td>0</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>55</td>
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<tr>
<td>Average</td>
<td>19</td>
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Worldwide Governance Indicators

Equatorial Guinea is the third largest oil exporter in Sub-Saharan Africa after Nigeria and Angola. The country has seen a rapid economic growth in the last 20 years, fuelled by growing oil production and more recently high oil prices. Notwithstanding the exceptional wealth and the relatively small population, the government has struggled to define and implement measures to develop the non oil economy and reduce poverty and inequality.
## Database

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<tr>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>2</td>
<td>GEPetrol, founded in 2002, and Sonagas, founded in 2005.</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>2</td>
<td>GEPetrol was established as NOC by presidential decree in February 2001 and started operating in 2002.</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>2</td>
<td>100%</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>2</td>
<td>Not listed</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
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<td>Not traded</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>2</td>
<td>No</td>
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<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>2</td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>2</td>
<td>According to company organization, there is a BOD but no further details are available. The executive management team is led by the National Director, who reports to BOD based on the organizational chart.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2008</td>
<td>2</td>
<td>GEPetrol is described as interacting with the Ministry of Mines, Industry and Energy, but also as being separate and autonomous. However, the level of its budgetary autonomy is unclear.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>Yes, GEPetrol can engage in partnerships.</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>2</td>
<td>GEPetrol does not have a mission statement on the web site (although tasks, or objectives, are stated).</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td>No data</td>
<td></td>
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<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>2</td>
<td>GEPetrol operates only in EG.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>2</td>
<td>Not yet but GEPetrol is considering participation in international E&amp;P activities, either by itself or in partnership with other national or</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>GEPetrol is a JV partner to the new Luba port, a deepwater port to provide logistics services to the oil industry.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>No refining by GEPetrol.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>GEPetrol's portfolio includes upstream natural gas.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>Sonagas is the NOC partner in the EGLNG project.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>Not much activity by Sonagas - very small market.</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>GEPetrol and Sonagas are not involved.</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
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<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>Operating Performance</td>
<td>After tax return on assets</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume (SM/barrel)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Avg reinvestment risk (%)</td>
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<td>Avg debt profile (%)</td>
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<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
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<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
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<td>Year of Source of Data</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>The Ministry of Mines, Industry and Energy is described as “the regulatory and legislative agency which has responsibility for all matters relating to minerals, petroleum, industry and energy supplies.” Oil revenues account for over 70% of the national income; as such, the sector is the primary engine of growth for the country’s economy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>The Ministry is in charge of regulation and policy; GEPetrol and Sonagas represent the commercial interests of the State in oil and gas deals subject to these regulations and policies. GEPetrol has some regulatory responsibilities such as E&amp;P licensing. And Sonagas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>Objectives (or duties) are stated but not ranked; and include promotion of open acreage, building human capacity, securing access to technology, and environmental policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>No data on oil revenue and its management is given in the official website of the Ministry of Economy and Finance. The EG government pledged improvements and is now implementing EITI.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>Equatorial Guinea is a candidate country to EITI. No information exists yet on this program. No other transparency initiatives seem to be in operation.</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008</td>
<td>2</td>
<td>Production and reserves in EG have increased significantly. The last bidding round attracted ONGC (India) and NNPC (Nigeria) in addition to independents. No IOCs participated in that round; IOCs already operate in the country. PetroSA was also awarded blocks.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Given the expansion of reserves and production in recent years, it appears that fiscal regimes are appropriate for the development stage of EG’s resource base. Recently, the government passed legislation to increase required state participation in any upstream project to a minimum of 35%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2006, 2006, 2007</td>
<td>3, 4, 1</td>
<td>The hydrocarbon law (Decree Law No. 8/2006 of November 2006) and model PSA appear to be attractive and open bidding rounds seem to attract investors. However, 3 blocks were awarded to PetroSA for South Africa's help in preventing a coup attempt in EG.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Production sharing agreements exist.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td></td>
<td></td>
<td>Under the PSA terms, GEPetrol or Sonagas must have a minimum interest of at least 35%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td></td>
<td>Turnkey contracts are held by the operators (GEPetrol and Sonagas partners in oil and gas projects).</td>
</tr>
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<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td></td>
<td>None</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008</td>
<td>2 Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td>2 Open bidding rounds exist attracting diverse participants, including independents, IOCs and NOCs from India, China and elsewhere. PSA terms require GEPetrol or Sonagas to be partners to international companies in their respective business areas.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td>2 EG is a very small market; competition is limited.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
<td>2 Partnerships exist with both other NOCs and non-NOCs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008</td>
<td>2 0%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008</td>
<td>2 Currently, GEPetrol has no international operations.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008 2 The overall regulator is the Ministry; but GEPetrol handles all aspects of upstream bidding and licensing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>GEPetrol and Sonagas serve the government goals as outlined by the Ministry policies and regulations; and represent in EG interest in oil &amp; gas investments. Local downstream markets are small and do not offer much room for competition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2008 2 The Ministry provides information related to upstream data collection and availability of data packages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>All products are imported. The market is small and customers are mostly poor. Subsidies exist but have no data to quantify them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
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<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>The Ministry web site contains very limited operating (volumetric) information, but considerable information on EG's resource endowments, activity, and geologic and geophysical data. Only descriptive information is provided for the NOCs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>GEPetrol and Sonagas are very new companies, established in 2002 and 2005, respectively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Equatorial Guinea is the third largest oil exporter in Sub-Saharan Africa after Nigeria and Angola. The country has seen a rapid economic growth in the last 20 years, fuelled by growing oil production and more recently high oil prices. Notwithstanding the exceptional wealth and the relatively small population, the government has struggled to define and implement measures to develop the non oil economy and reduce poverty and inequality.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>14.08</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>96.80%</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>90.06%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>1,755.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>1,300.00</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>1,979.14</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>88.67%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.99%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>1,690.57%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
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## Sources of Information

<table>
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<tr>
<td>5</td>
<td>2008</td>
<td>EITI - Eq. Guinea</td>
<td>No web site available</td>
</tr>
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</table>
**Ghana: Ghana National Petroleum Corporation (GNPC)**

### Corporate Governance Highlights

**Corporate Organization and Ownership**
The GNPC was established in 1983 under PNDC Law 64 as a body corporate to undertake the “exploration, development, production and disposal of petroleum”. GNPC began to operate in 1985.

**Shares Controlled by Government**
100%

**Domestic, International Exchanges for Equity Listings**
Not listed

**Board of Directors Structure**
No data

**Independent Board Members**
No data

**Is chairman also minister of energy or otherwise appointed by head of state?**
No data

### Operations Highlights

**Upstream Oil**
GNPC operates only in Ghana and only in upstream. Private companies can invest in upstream. GNPC promotes such investment and manages the investor relations.

**Midstream Oil**
Another NOC, Bulk Oil Storage & Transport (BOST) is responsible for storage; not much pipeline transportation capacity exists in Ghana.

**Downstream Oil**
Two other NOCs, Tema Oil Refinery (TOR) and Ghana Oil Company Limited (GOIL) are operating in the downstream.

**Upstream Natural Gas**
GNPC's portfolio includes upstream natural gas but so far only limited associated gas production happens at the Saltpond basin. New E&P activity targeting non-associated gas fields may take place in the near future.

**Midstream Natural Gas**
BOST was recently assigned the task of building and operating gas transmission pipelines in Ghana to deliver gas from the West African Gas Pipeline to other parts of Ghana.

**Downstream Natural Gas**
No gas local distribution concession has been awarded yet. The Energy Commission (EC) and Public Utilities Regulatory Commission (PURC) finished most licensing and pricing regulations but parliament has not approved all of them. There are local companies interested in building local distribution networks in Tema and Takoradi; these potential investors are waiting for frameworks to be finalized and natural gas deliveries from WAGP to begin.

**Other**
GNPC has interest in a gold mine.

### Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>No data</td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
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</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>No data</td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td>No data</td>
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</table>
Financial Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues</td>
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</tr>
<tr>
<td>($Millions)</td>
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</tr>
<tr>
<td>Consolidated Average Total Assets</td>
<td>No data</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average EBIT</td>
<td>No data</td>
</tr>
<tr>
<td>($Millions)</td>
<td></td>
</tr>
<tr>
<td>Consolidated Average Net Income</td>
<td>No data</td>
</tr>
<tr>
<td>($Millions)</td>
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</table>

Categorization In

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
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<td>Public Sector Governance</td>
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</tr>
<tr>
<td>Commercialization</td>
<td>0</td>
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<tr>
<td>Fiscal Regimes</td>
<td>25</td>
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<tr>
<td>Resource Endowment</td>
<td>0</td>
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<tr>
<td>Oil Dependency</td>
<td>86</td>
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<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>28</td>
</tr>
</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Reform of oil sector governance arrangements has begun ahead of first oil from Ghana's Jubilee field in 2010. A Government team has been formulating a national oil and gas policy to establish principles of sound resource, environmental and revenue management modelled on best international practices. Moreover, some implementation measures are already under preparation, notably draft petroleum legislation, now in the form of a published Bill, which, among other things, would separate regulatory from commercial interests of the State. A new regulatory body would be responsible for licensing and negotiation of petroleum agreements. The national oil company, GNPC, would focus on holding the State's participation in petroleum licences, operating licences for its own account either independently or in joint venture and engaging in pipeline and some other downstream operations. Implementation is subject to agreement on detailed aspects of these measures by a new administration following the December 2008 Presidential elections.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
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<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>Ghana National Petroleum Corp. (GNPC) is responsible for upstream; Tema Oil Refining (TOR) is the refining company, Ghana Oil Company Ltd. (GOIL) is the products marketing &amp; distribution, and Bulk Oil Storage &amp; Transport Ltd. (BOST) is the strategic storage and distribution company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>2</td>
<td>The GNPC was established in 1983 under PNDC Law 64 as a body corporate to undertake the “exploration, development, production and disposal of petroleum”. GNPC began to operate in 1985. TOR and GOIL were originally set up by Italian companies in the early 1960s but their shares were later transferred to the State in 1977 and 1975 respectively.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td></td>
<td>Not listed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td></td>
<td>Not traded</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>2008</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source Response</td>
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<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>Yes. GNPC is already a partner with international companies and is negotiating with others for new offshore concessions after recent oil discoveries.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>&quot;The mission of GNPC is to promote, explore and develop the hydrocarbon resources of the nation through lean, efficient and technology-driven investments so as to enhance the economic development of Ghana&quot;. The web site further states: &quot;Ghana National Petroleum Corporation is responsible for the exploration, development, production and disposal of petroleum in Ghana&quot;.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008</td>
<td>1</td>
<td>Other than specifying that service companies contracting with GNPC must follow local content requirements (see below) there does not appear to be much focus on non-commercial activities.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>1</td>
<td>GNPC operates only in Ghana and only upstream. Private companies can invest in upstream. GNPC promotes such investment and manages the investor relations.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>1,2,3</td>
<td>Bulk Oil Storage &amp; Transport (BOST) is responsible for storage; pipeline transportation capacity is limited.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>2,3</td>
<td>TOR and GOIL are the NOC entities in Ghana operating in the downstream. TOR is the only refinery in the country; GOIL competes with private companies in the products market.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>1</td>
<td>GNPC's portfolio includes upstream natural gas; but only limited associated gas production happens at the Saltpond basin. New E&amp;P activity targeting gas fields may take place in the near future.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>1,2,3</td>
<td>BOST was recently the task of building and operating gas transmission pipelines in Ghana to deliver gas from West African Gas Pipeline to other parts of Ghana.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>1,2,3</td>
<td>No gas local distribution concession has been awarded yet. The Energy Commission (EC) and Public Utilities Regulatory Commission (PURC) finished most licensing and pricing regulations but parliament has not approved all of them. There are local companies interested in building local distribution networks in Tema and Takoradi; these potential investors are waiting for frameworks to be finalized and natural gas deliveries from WAGP to begin.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
<td>1</td>
<td>GNPC has interest in a gold mine. According to company web site, it used to have some activities in the telecom sector but no current data available on these activities.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($/barrel)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Operating Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>1,2,3</td>
<td>Hydrocarbons have not played an important role in the Ghanaian economy as production has been very limited. With recent oil discoveries and high oil prices, the government's interest in the sector has increased, but it is too early for a policy of resource-driven economic development.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>1,2,3</td>
<td>GNPC, TOR, GOIL, BOST and the regulatory agencies, EC, PURC and the National Petroleum Authority (NPA), have specific roles. But jurisdictional overlaps occur; and decision making authority can be challenged. GNPC manages upstream investment with Ministry of Energy supervision.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>GNPC's objective has been to generate enough revenues from its non-hydrocarbon sector activities (telecom, gold) to support riskier and more capital-intensive upstream activities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>2008</td>
<td>1</td>
<td>This does not seem to be an issue; GNPC does not have large revenues and has not been assigned non-commercial objectives.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>4</td>
<td>&quot;In September 2003 the Minerals Commission released the first revenue figures. A multi-stakeholder Steering Committee was established followed by the creation of an EITI Working Group by ministerial decree in February 2005. A Secretariat formed to oversee EITI implementation was created in the Ministry of Finance and Economic Planning. The EITI Secretariat is a subset of the Multistakeholder Committee.&quot;</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>4</td>
<td>Ghana was named an EITI candidate country in September 2007. EITI focuses more on the mining sector than the hydrocarbon sector in Ghana; but if recent oil discoveries lead to significant revenues, the focus may shift to oil.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>No. Ghana attracted little investment over the years and production has been too small to justify reinvestment. The fiscal regime has also been less than attractive relative to country's resource potential. Finally, investment negotiations have been less than transparent, creating the impression of preferential treatment. Recent discoveries may increase the level of interest in Ghana.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Ghana's fiscal regime has been relatively harsh taking into consideration the country’s prospectivity. In addition, past bidding rounds have suffered from lack of transparency and inadequate promotion. Recent discoveries and high oil prices may warrant a review of the fiscal regime to improve its competitiveness and flexibility.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>Upstream investment takes place under the Law, PNDCL 84, 1984, Petroleum Income Tax Law 188, and GNPC Law 64. However, there is a new draft bill, which is expected to pass in early 2009. Currently, upstream investment happens via concessionary agreements with GNPC. With the new law, a more competitive and transparent process for upstream bidding is expected.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>Agreements are reached not through open bidding rounds but rather through negotiations with GNPC and the Ministry.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2008</td>
<td>Companies are awarded E&amp;P licenses for 5-10 years. GNPC is not necessarily a partner. However, GNPC both issues and regulates the agreements.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2008</td>
<td>The service companies (private operators) contracting with GNPC would hold turnkey contracts.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2008</td>
<td>No integration.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2008</td>
<td>No</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
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<td>No</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations</td>
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<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>(%)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Only a handful of smaller companies such as Kosmos and Tullow are operating in Ghana. Amerada Hess is the only larger company that appears to be active. If recent discoveries prove successful and if Ghana decides to pursue a more open bidding system, the country may attract more investors.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>There are several private companies competing in products marketing against GOIL. The National Petroleum Authority (NPA) regulates product prices via a price-cap method, leaving enough room for competition. GOIL is subject to same regulation. TOR is the only refinery.</td>
<td></td>
</tr>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
<td></td>
<td>On the marketing side, it appears healthy. See above.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>GNPC is negotiating and holds some agreements with upstream operators and service contracts with service companies.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td>Not active internationally.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td>There is no specific data but non-commercial activities do not appear to constitute a significant part of GNPC's overall activities.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td></td>
<td>For upstream, GNPC is the regulator with Ministry of Energy concurrence. For downstream, NPA is the independent regulator.</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>----------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td></td>
<td>Not fully applicable as there is no independent upstream regulator; in fact, GNPC has some regulatory functions.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td></td>
<td>GNPC's regulatory role has the potential to undermine data transparency.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>No publicized dispute resolution policies. It is likely that the Ministry of Energy and/or Attorney General's office will get involved in case of conflicts.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>There are no significant petroleum subsidies in Ghana. GNPC is not producing much crude oil; TOR imports crude oil at world prices and prices its refined products accordingly. NPA regulates product prices based on refinery gate (and import) prices. Recently, the government reduced some taxes and import tariffs to provide relief to customers but did not touch fuel prices otherwise. In 2001, Ghana initiated a petroleum product price rationalization program that was successfully implemented in 2005. The program was designed to phase out subsidies that prevented full cost recovery by TOR.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>There is no specific data but non-commercial activities do not appear to constitute a significant part of GNPC's overall activities.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>No data</td>
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### Indicator Category: Other Factors

#### Indicator Description: Non-commercial Objectives

<table>
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<th>Year of Source of Data</th>
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<tr>
<td>Compensation obligations relative to workforce ($M)</td>
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<td>No data</td>
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<tr>
<td>Financial performance relative to workforce ($M)</td>
<td></td>
<td>2008</td>
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<td>No data</td>
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</table>

#### Quality of Data
- Availability, extent, reliability of data provided by NOC(s) and governments

#### Longevity of NOC
- Based on available information, history and persistence of NOC(s)

#### Country Status
- Trends and issues related to country hydrocarbon sector endowments and performance

---

**Other Comments**

**Quality of Data**

No financial data on GNPC is available. Some information on activities and how GNPC administers Ghana's hydrocarbon laws and establishes service contracts is available.

**Longevity of NOC**

GNPC has been around since 1990 (at least). But commensurate with the small size of hydrocarbon reserves in Ghana, its role has been limited.

**Country Status**

Reform of oil sector governance arrangements has begun ahead of first oil from Ghana's world-class Jubilee field in 2010. A Government team has been formulating a national oil and gas policy to establish principles of sound resource, environmental and revenue management modelled on best international practices. Moreover, some implementation measures are already under preparation, notably draft petroleum legislation, now in the form of a published Bill, which, among other things, would separate regulatory from commercial interests of the State. A new regulatory body would be responsible for licensing and negotiation of petroleum agreements. The national oil company, GNPC, would focus on holding the State's participation in petroleum licences, operating licences for its own account either independently or in joint venture and engaging in pipeline and some other downstream operations. Implementation is subject to agreement on detailed aspects of these measures by a new administration following the December 2008 Presidential elections.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>200.00</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-36.42%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-14.02%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>16.50</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>805.19</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>155.33</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
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<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>10.62%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>1.49%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

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<tr>
<td>4</td>
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<td>EITI - Ghana</td>
<td><a href="http://eitransparency.org/Ghana">http://eitransparency.org/Ghana</a></td>
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<td>6</td>
<td>2008</td>
<td>USEIA International database</td>
<td><a href="http://www.eia.doe.gov/emeu/international/contents.html">http://www.eia.doe.gov/emeu/international/contents.html</a></td>
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</table>
### Mozambique: Empresa Nacional de Hidrocarbonetos de Mocambique (ENH)

#### Summary Report

<table>
<thead>
<tr>
<th>Corporate Governance Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Organization and Ownership</strong></td>
</tr>
<tr>
<td>Organized by and held by the government of Mozambique.</td>
</tr>
<tr>
<td><strong>Shares Controlled by Government</strong></td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td><strong>Domestic, International Exchanges for Equity Listings</strong></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td><strong>Board of Directors Structure</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Independent Board Members</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Is chairman also minister of energy or otherwise appointed by head of state?</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operations Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstream Oil</strong></td>
</tr>
<tr>
<td>The company operates solely in the country but does not have exclusive access to resources. Affiliate Companhia Moçambicana de Hidrocarbonetos (CMH) is developing Pande Field and Temane field (jointly with South African Coal Oil and Gas Corporation (Sasol).</td>
</tr>
<tr>
<td><strong>Midstream Oil</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Downstream Oil</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream Natural Gas</strong></td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Midstream Natural Gas</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Downstream Natural Gas</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Operations Performance Highlights (2004-2007; not all years or data reported)</th>
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</thead>
<tbody>
<tr>
<td><strong>Upstream: Average Proved Oil Reserves (MM Barrels)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Proved Gas Reserves (BCF)</strong></td>
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<td>No data</td>
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<tr>
<td><strong>Upstream: Average Annual Oil Production (MM Barrels)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Upstream: Average Annual Natural Gas Production (BCF)</strong></td>
</tr>
<tr>
<td>No data</td>
</tr>
<tr>
<td><strong>Downstream: Average Annual Refinery Production (MM Barrels)</strong></td>
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<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
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<tbody>
<tr>
<td><strong>Consolidated Average Total Revenues($Millions)</strong></td>
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</tr>
<tr>
<td><strong>Consolidated Average Total Assets($Millions)</strong></td>
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</tr>
<tr>
<td><strong>Consolidated Average EBIT ($Millions)</strong></td>
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<tr>
<td><strong>Consolidated Average Net Income ($Millions)</strong></td>
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Mozambique: Empresa Nacional de Hidrocarbonetos de Mocambique (ENH)

Categorization Indicators

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<th>Categories</th>
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<tr>
<td>Corporate Governance</td>
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<tr>
<td>Public Sector Governance</td>
<td>75</td>
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<tr>
<td>Commercialization</td>
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<tr>
<td>Fiscal Regimes</td>
<td>25</td>
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<tr>
<td>Resource Endowment</td>
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<td>Oil Dependency</td>
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<td>Local Contribution</td>
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<td>Sector and Trade Openness</td>
<td>63</td>
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<tr>
<td>Average</td>
<td>48</td>
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Worldwide Governance Indicators

Trends and Issues

Mozambique has small but attractive natural gas reserves that it is attempting to exploit both for internal energy and national development needs. Exports to South Africa are currently an important driver of upstream investment. A small but growing number of international companies operate in the sector. The country is still in post-civil war recovery, and investments needs remain important. The Government is introducing measures to strengthen the administration of the petroleum resources to enhance economic development and welfare in Mozambique.
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td></td>
<td>2005</td>
<td>A cluster of sovereign companies operates in each sector. The Empresa Nacional de Hidrocarbonetos de Mocambique (ENH) E&amp;P affiliate had an IPO of 5% of stock at local exchange.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td></td>
<td>4</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td></td>
<td></td>
<td>Organized by and held by the government of Mozambique.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2005</td>
<td>7</td>
<td>100%</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
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<td>None</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
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<td>None</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td></td>
<td></td>
<td>Yes</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
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<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
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<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment), Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
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<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
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<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>6</td>
<td>The company operates solely in the country but does not have exclusive access to resources. Affiliate CMH is developing Pande Field and Temane field (jointly with Sasol).</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td></td>
<td>No</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($/M/barrel)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total after-tax income/revenues (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg gross debt/after-tax capital employed (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2001</td>
<td>“The State, including State institutions and entities have a definitive role in promoting the exploitation of the existing potential in such a way as to provide access to the benefits of petroleum production and contribute to the social and economic development of the country.”</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>Present. Roles of the Ministry, Council of Ministers, INP are clearly defined. Role of NOC is obscure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Mozambique does not participate in EITI and no other major transparency programs appear to operate there.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Year of Source of Data: 2002</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Source: 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Response: Investment tax credit (5-15%); deduction from taxable income up to 15% on specialized (advanced) equipment; tax deductible expenditures; income tax benefits till 2010; exemption of customs duties; 25% reduction in corporate income tax for 8 years.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Other Factors</th>
<th>Fiscal Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data: 2001, 2004</td>
</tr>
<tr>
<td></td>
<td>Source: 2, 3</td>
</tr>
<tr>
<td></td>
<td>Response: Investment grade NOC credit ratings was not granted</td>
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<thead>
<tr>
<th>Other Factors</th>
<th>Access to Reserves</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data: 2001, 2002</td>
</tr>
<tr>
<td></td>
<td>Source: 2,5</td>
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<tr>
<td></td>
<td>Response: Present; appears to be favorable.</td>
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<tr>
<th>Other Factors</th>
<th>Access to Reserves</th>
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<tbody>
<tr>
<td></td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data: 2001, 2002</td>
</tr>
<tr>
<td></td>
<td>Source: Exploration and Production Contracts (EPCs).</td>
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<thead>
<tr>
<th>Other Factors</th>
<th>Operating Strategy</th>
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<tbody>
<tr>
<td></td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data: 2001, 2002</td>
</tr>
<tr>
<td></td>
<td>Source: Exploration and Production Contracts (EPCs) - 10-20%</td>
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<td></td>
<td>Response: No data</td>
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<tr>
<th>Other Factors</th>
<th>Operating Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data</td>
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<tr>
<td></td>
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<thead>
<tr>
<th>Other Factors</th>
<th>Business Integration</th>
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<tr>
<td></td>
<td>Vertical, horizontal integration</td>
</tr>
<tr>
<td></td>
<td>Year of Source of Data</td>
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<thead>
<tr>
<th>Other Factors</th>
<th>International Presence</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Does NOC make investments abroad</td>
</tr>
<tr>
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<td>Year of Source of Data</td>
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<td></td>
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<tr>
<th>Other Factors</th>
<th>International Presence</th>
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<tbody>
<tr>
<td></td>
<td>Avg company international BOE production as % avg total company BOE production</td>
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<tr>
<td></td>
<td>Year of Source of Data</td>
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<tr>
<th>Other Factors</th>
<th>International Presence</th>
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<tbody>
<tr>
<td></td>
<td>Change in company BOE production from international operations (%)</td>
</tr>
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<td>Year of Source of Data</td>
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<tr>
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<tbody>
<tr>
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<td>Does NOC make investments abroad</td>
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<tr>
<th>Other Factors</th>
<th>International Presence</th>
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<tbody>
<tr>
<td></td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
</tr>
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<td>Year of Source of Data</td>
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### Mozambique: Empresa Nacional de Hidrocarbonetos de Mocambique (ENH)

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<td>Change in company refinery throughput from international operations (%)</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008 4 Yes</td>
<td></td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>There is growing competition. Exploration and Production Contracts with the government of Mozambique - Anadarko, Sasol, Norsk Hydro, Eni. .</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream and downstream sectors</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>ENH is partner of international companies in E&amp;P contracts. In some cases, IOCs start with 100% working interest in projects.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>0</td>
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<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>Not applicable</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008 4 INP (National Petroleum Institute) &quot;manages the petroleum resources of Mozambique and administers the related operations for the benefit of the Society, and in compliance with the existing laws, government policies and contractual commitments&quot;.</td>
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<tr>
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<td>Source Response</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>2004</td>
<td>The Council of Ministers has power to &quot;(a) Approve the execution of exploration and production contracts and of oil or gas pipeline contracts; (b) Approve development plans and any substantial amendments thereto, as drafted by the holders of rights of exploration and production of petroleum; (c) Define the powers effecting other contracts under the terms of the law; (d) Perform any other duties attributed under the terms of the law or of any other applicable legislation.&quot; Independence of INP is questionable, although it is formally an autonomous body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td></td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Mozambique: Empresa Nacional de Hidrocarbonetos de Mocambique (ENH)

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source Response</th>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Almost nonexistent</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td>Mozambique has small but attractive natural gas reserves that it is attempting to exploit both for internal energy and national development needs. Exports to South Africa are currently an important driver of upstream investment. A small but growing number of international companies operate in the sector. The country is still in post-civil war recovery, and investments needs remain important. The Government is introducing measures to strengthen the administration of the petroleum resources to enhance economic development and welfare in Mozambique.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>200.00</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-13.64%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-5.38%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>4,313.66</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>743.73</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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## Sources of Information

<table>
<thead>
<tr>
<th>Source #</th>
<th>Year of Source</th>
<th>Source Description</th>
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</thead>
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<tr>
<td>6</td>
<td>2008</td>
<td>CMH web-site</td>
<td><a href="http://www.cmh.co.mz/sobre_nos.html">http://www.cmh.co.mz/sobre_nos.html</a></td>
</tr>
</tbody>
</table>
Nigeria: Nigerian National Petroleum Company (NNPC)

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
NNPC is a public company entrusted with the management of “all government interests in the Nigerian oil industry”.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
The NNPC BOD has 12 members. Following the dissolution of the NNPC Board in April 2007 (post-national elections), a new board was appointed by the Federal Government of Nigeria.

Independent Board Members
The NNPC Board consists of Group Managing Director, 6 Executive Directors and 4 appointees of the government. The Chairman of the Board is the Minister of Petroleum. The GMD and Executive Directors typically rise from within NNPC subject to Board approval.

Is chairman also minister of energy or otherwise appointed by head of state?
Yes. The Minister of Petroleum is chairman of the BOD.

Operations Highlights

Upstream Oil
NPDC has initiated operations in Equatorial Guinea as part of a new MOU associated with settlement of territorial boundary issues.

Midstream Oil
NNPC has 12 strategic business units, including midstream oil operations. There is a pipeline subsidiary.

Downstream Oil
NNPC has 12 strategic business units, including refining and marketing, although Nigeria's downstream segment is open to competitive private participation. There are several R&M subsidiaries. Duke Oil is a marketing subsidiary based in London.

Upstream Natural Gas
Upstream gas is operated in the same way as upstream oil, i.e., through JVs and PSAs. Production of associated gas through JVs is NNPC's responsibility.

Midstream Natural Gas
Nigerian Gas Company Ltd (NGC) is responsible for gas pipelines. LNG projects are usually done as partnerships between NNPC and IOCs.

Downstream Natural Gas
NGC and private companies run LDCs, NGLs operations.

Other
NNPC is playing a key role as a JV partner in requesting IOCs to build power plants.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td></td>
</tr>
<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td></td>
</tr>
<tr>
<td>Downstream: Average Annual Refinery Production (MM Barrels)</td>
<td></td>
</tr>
</tbody>
</table>
Nigeria: Nigerian National Petroleum Company (NNPC)

Financial Performance Highlights (2004-2007; not all years or data reported)

- Consolidated Average Total Revenues ($Millions): No data
- Consolidated Average Total Assets ($Millions): No data
- Consolidated Average EBIT ($Millions): No data
- Consolidated Average Net Income ($Millions): No data

Categorization Indicators

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scores</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>47</td>
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<tr>
<td>Public Sector Governance</td>
<td>45</td>
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<tr>
<td>Commercialization</td>
<td>67</td>
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<td>Fiscal Regimes</td>
<td>25</td>
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<tr>
<td>Resource Endowment</td>
<td>13</td>
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<tr>
<td>Oil Dependency</td>
<td>72</td>
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<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>39</td>
</tr>
<tr>
<td>Average</td>
<td>45</td>
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</tbody>
</table>

Worldwide Governance Indicators

Trends and Issues

Nigeria remains dependent on hydrocarbon production and revenues for its economy. Development of the country's natural gas resources will likely increase that dependence, especially if domestic industries cannot be spurred by increased natural gas production and improved access. A large factor is integrity of Nigeria's electric power system, integral both to hydrocarbon operations and as a vehicle for natural gas monetization and improved standards of living. A number of regional issues are at play, including commitment of natural gas reserves to the new West African Gas Pipeline; a push to develop the Trans-Sahara Pipeline, which is very costly and questionable with regard to netbacks for Nigerian natural gas production; and rationalization of Nigeria's downstream segment as a boost to regional supplies of petroleum products.
### Database

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>NNPC Group constitutes the sole NOC; it contains 12 strategic business units.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>1, 15</td>
<td>1 - At present, the state's main actor in the sector is NNPC and its various subsidiaries. However, the government plans to break-up NNPC in five new organisations, and to create a national energy council to oversee the sector as a whole.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>1990</td>
<td>14</td>
<td>The Nigerian National Petroleum Corporation Act 1990 established NNPC as a corporation empowered to engage in all commercial activities relating to the Petroleum industry and to enforce all regulatory measures relating to the general control of the petroleum sector through its petroleum inspectorate department.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
<td>1</td>
<td>Not listed</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>1</td>
<td>Not traded</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>1</td>
<td>No</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes. The NNPC has a 12-member board; subsidiary companies also have their own boards.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>1</td>
<td>The NNPC BOD has 12 members and consists of Group Managing Director, 6 Executive Directors and 4 appointees of the government.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td></td>
<td></td>
<td>Yes. The Minister of Petroleum is chairman of the BOD.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>2</td>
<td>There are four external directors appointed by the government. The GMD and Executive Directors typically rise from within NNPC subject to Board approval.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td>1990</td>
<td>14</td>
<td>Three years renewable once. Per above, removal or dissolution is possible.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td></td>
<td></td>
<td>The BOD sets strategy, approves projects and contracts.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td></td>
<td></td>
<td>The BOD has power and decision making authority. The GMD’s office is the top management of the company.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>NNPC personnel are typically career professionals. Executive Directors typically rise from within the company after decades of service. In recent years, a worldwide effort to recruit qualified personnel supplemented this in-house capacity.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td></td>
<td>The NNPC budget typically covers the company’s share of JV projects. It also includes some exploration and development investment. NNPC senior managers have limited budget approval authority which constrains investment and implementation of critical projects.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2008</td>
<td>8</td>
<td>NNPC prepares its own budget, which must be approved by the Committee of Petroleum Resources at the House (National Assembly). In November 07, NNPC presented its budget for upstream operations for 2008 to President Yar-Adua for review and consideration by Government. &quot;The estimated budget was $15.2 billion with an expected government contribution of $8.8 billion. The Government would provide $4.9 billion through the 2008 budget allocation while the balance of $3.8 billion would be sourced by NNPC and the Ministry of Finance from NNPC’s JV partners and (for the first time) commercial banks, including the sum of $2.9 billion outstanding for 2006 and 2007 performance.&quot;</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td></td>
<td>Upstream operations have been managed through JVs and PSAs. NNPC is said to be in negotiations with JV partners to increase the Nigerian equity share to a majority position.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>&quot;NNPC is an integrated oil and gas company, engaged in adding value to the nation’s hydrocarbon resources for the benefit of all Nigerians and other stakeholders.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td>See above on budget process.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td></td>
<td>Staff development and growth are among NNPC’s core values. The company is reportedly making active use of training programs around the world and in-country.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td></td>
<td>No information is reported.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008</td>
<td>1</td>
<td>Other than promoting the Nigerian Content policy, NNPC does not seem to have many obligations to provide non-commercial services.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country’s resources?</td>
<td>2008</td>
<td>1</td>
<td>NPDC, a wholly owned subsidiary of NNPC, has initiated operations in Equatorial Guinea as part of a new MOU associated with settlement of territorial boundary issues. No information is available on other international E&amp;P investments.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td>1</td>
<td>Yes, including international marketing offices.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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<td>--------------------</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>1</td>
<td>NNPC has 12 strategic business units, including midstream oil operations. There is a pipeline subsidiary.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>1</td>
<td>NNPC has 12 strategic business units, including refining and marketing, although Nigeria’s downstream segment is open to competitive private participation. There are several R&amp;M subsidiaries. Duke Oil is a marketing subsidiary based in London.</td>
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<tr>
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<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>1</td>
<td>Upstream gas is operated in the same way as upstream oil, i.e., through JVs and PSAs. Production of associated gas through JVs is NNPC's responsibility.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>1</td>
<td>Nigerian Gas Company Ltd (NGC), a wholly owned subsidiary of NNPC, is responsible for gas pipelines. LNG projects are usually done as partnerships between NNPC and IOCs.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
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<td>NGC and private companies run LDCs, NGL operations.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td></td>
<td></td>
<td>NNPC is playing a key role as a JV partner in requesting IOCs to build power plants.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td>No data</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td>No data</td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td>No data</td>
<td>The oil sector accounts for about 50% of GDP, more than 95% of export receipts, and more than 80% of government revenue. Although NNPC’s vision is to be a world class oil company, its mission underlines the fact that it works for the benefit of all Nigerians. Also, its role in local content and IPPs may be indicative of company’s involvement in wider government objectives.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td></td>
<td>NNPC’s 12 subsidiaries mostly have clearly defined roles. When it comes to regulation, there is some overlap between National Petroleum Investment Management Services (NAPIMS) and the Department of Petroleum Resources (DPR). The latter was carved out of NNPC’s self-regulating function and is intended to serve as an independent hydrocarbon regulator. In the natural gas segment, there are conflicts between NGC and other gas sector operators.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2007</td>
<td>15</td>
<td>There is a plan to re-organize NNPC into different units with more commercial orientations. A new downstream gas regulator may take away NGC’s regulatory functions. Similarly, regulatory functions embedded in NAPIMS may be moved into DPR.                                                                ATHER IS A PLAN TO RE-ORGANIZE NNPC INTO DIFFERENT UNITS WITH MORE COMMERCIAL ORIENTATIONS. A NEW DOWNSTREAM GAS REGULATOR MAY TAKE AWAY NGC’S REGULATORY FUNCTIONS. SIMILARLY, REGULATORY FUNCTIONS EMBEDDED IN NAPIMS MAY BE MOVED INTO DPR.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
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<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>2008</td>
<td>3,4</td>
<td>&quot;Nigeria was one of the first countries to commit to EITI. NEITI remains the most ambitious and the most advanced. Nigeria has conducted and published independent audits of payments and revenues, and was the first to insist that information be published in a disaggregated fashion, making it possible to identify revenues company by company, category by category and well by well.&quot; Several public finance management reforms have been launched, including the passage of the Fiscal Responsibility Act in 2007.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008, Current</td>
<td>3, 4, 5, 6</td>
<td>Nigeria is a candidate country for EITI. Under former President Obasanjo, Nigeria launched NEITI, a transparency initiative that goes beyond the minimum standards of EITI. In addition to EITI, Transparency International maintains a national chapter in Nigeria (but no web site) and National Democratic Institute has been active in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>Judging by the pace of development and continuous industry interest in Nigeria, the fiscal regime would appear to be adequate to support investment and re-investment. The new NNPC restructuring plan and assertiveness of the government and NNPC with regard to increasing their take and NNPC equity is affecting IOC forward looking views. Natural gas pricing and implicit export restraints (through political assignment of reserves and fields to particular projects) are obstacles for upstream development. Overall, the biggest challenge at this time is probably unrest in the Niger Delta. NNPC has begun internal efforts to grapple with security and</td>
</tr>
<tr>
<td>Indicator Category</td>
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<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2007</td>
<td>9</td>
<td>NNPC is not listed. A stated goal for the NNPC restructuring is to explore international capital market access.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Natural gas pricing and implicit export restraints are obstacles for gas upstream development as well as investment in gathering systems, flared gas capture and pipelines. To meet the stated national goal of deploying natural gas production for internal market development, weaknesses in the electric power framework also need to be address. Encouraging in this regard is establishment of the National Energy Regulatory Commission (NERC) and the effort to professionalize that agency.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>1</td>
<td>All the petroleum in Nigeria is vested in the Federal Government, whose sole responsibility it is to control the resources and only permit their exploitation under license, in accordance with the Petroleum Act 1969 as amended. Sector laws and regulations cover the terms and conditions of operations, technical and safety standards, environmental and health protection. Two types of licenses are awarded: an Oil Prospecting License (OPL) is granted for a period of maximum 5 years (10 for deep offshore) and confers exclusive rights of exploring the area specified in the license; and Oil Mining Lease (OML) is granted upon confirmation of potential for economic production of petroleum from the OPL. The OML is granted for a period of 20 years and entitles the holder to the exclusive rights to explore, win, produce and carry away petroleum from</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>the relevant area. Holders of OPL are entitled to convert their license to OML upon commercial discovery. The following forms of contract are available:, Concession, Joint Venture, Production sharing, Service contract, and Joint Operating Company.</td>
<td>A number of contracts and agreements are in place.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>Petroleum agreements are used with JVs that include NNPC and its subsidiaries.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>IOCs, domestic operators and NNPC all hold turnkey service contracts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>Through its 12 business units, NNPC is fully integrated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes. For example, NPDC took blocks in Equatorial Guinea.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2007</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2007</td>
<td>7</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
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</tr>
</tbody>
</table>

A number of diverse non-NOCs are active in Nigeria's upstream segment. Other NOCs (China, India, Korea, Russia, Algeria) are either operating or evaluating opportunities to operate in Nigeria.

The State reserves the right to participate in the operations of any block, directly or through NNPC.

Permits have been issued to build several private refineries. Oando, a leading petroleum-marketing company in Nigeria, is considering building a 180,000 B/D refinery in Lagos. And effort is underway to privatize NNPC's four oil refineries, petrochemicals plants, and its Pipelines and Products Marketing Company (PPMC). IOCs have shown little interest but there are negotiations with Libyan, Indian, and Chinese investors. A downstream oil issue is petroleum product pricing and associated subsidies, which limit cost recovery for downstream businesses.

Upstream JVs appear to be successful although recent and ongoing issues such as local content, NNPC restructuring, gas pricing policies and Niger Delta unrest are straining relations.

International operations are recent; too early to evaluate.
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td>NNPC does not seem to have an extensive or explicitly stated social investment program. However, as noted, NNPC is said to be evaluating how to improve community benefits in sensitive locations. A stated goal is to engage in community development efforts through commercial arrangements, but it also appears that terms would be favorable in order to spur local development and political stability.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>Current 11,12 DPR has resource constraints with regard to both budget and staffing. In addition, as noted, there is overlap and conflict between its functions and NAPIMS and other regulators that get involved in various activities across the oil and natural gas value chains. With regard to downstream oil, the Petroleum Products Pricing Regulatory Agency (PPPRA) has oversight product prices (and overall performance of the downstream segment).</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>Regulators, in general, seem to have limited enforcement powers. It is widely acknowledged that for transparency improvements, Nigeria’s regulatory bodies should be streamlined and bolstered with regard to budgets and staffing.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>Independence is reportedly curtailed by lack of resources, overlapping jurisdictions and political interference. The Ministry of Energy appears to be housed within NNPC. Interactions between ministry and NOC appear to be very close.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>PPPRA is tasked with regulating products, including subsidies, which are then compensated to NNPC through the State budget. The amount of the subsidies is not in the public domain but assumed to be substantial.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>Per above, NNPC does not seem to directly engage in broad social programs. Revenues are supposed to be funneled through government for that purpose.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>Transparency has been improving, especially after the launch of NEITI. However much more remain to be done. Nigeria is intensely covered by international news media, with mixed quality of information.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>NNPC has existed since the 1970s. It has grown and gained experience. Efforts have been made to improve staffing and skills levels. NNPC demonstrates a level of commercial and technical knowledge among its senior managers that often exceeds that of other African NOCs. Political pressure and lack of transparency may hinder NNPC’s performance.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td>Nigeria remains dependent on hydrocarbon production and revenues for its economy. Development of the country's natural gas resources will likely increase that dependence, especially if domestic industries cannot be spurred by increased natural gas production and improved access. A large factor is integrity of Nigeria's electric power system, integral both to hydrocarbon operations</td>
</tr>
</tbody>
</table>
and as a vehicle for natural
gas monetization and
improved standards of living.
A number of regional issues
are at play, including
commitment of natural gas
reserves to the new West
African Gas Pipeline; a push
to develop the Trans-Sahara
Pipeline, which is very costly
and questionable with regard
to netbacks for Nigerian
natural gas production; and
rationalization of Nigeria's
downstream segment as a
boost to regional supplies of
petroleum products.

<table>
<thead>
<tr>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>63.81</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>72.74%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>28.09%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>36,220.00</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>18,6991.14</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>68,459.85</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions Company primary distillation capacity as % of total country primary distillation capacity</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Company refinery throughput as % of total country refinery throughput</td>
<td></td>
<td></td>
<td>No data</td>
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<td>Other Factors</td>
<td>Operating Conditions Country oil/natural gas split, reserves (%)</td>
<td></td>
<td></td>
<td>52.91%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Country oil/natural gas split, production (%)</td>
<td></td>
<td></td>
<td>99.98%</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions Country BOE production as % of total country BOE consumption</td>
<td></td>
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<td>633.98%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness WTO Membership</td>
<td></td>
<td></td>
<td>Yes</td>
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<td>Other Factors</td>
<td>Competition OPEC Membership</td>
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<td>Yes</td>
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### Sources of Information

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<th>Source #</th>
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<th>Source Description</th>
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<td>EITI Nigeria</td>
<td><a href="http://eitransparency.org/Nigeria">http://eitransparency.org/Nigeria</a></td>
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<td>Nigeria EITI</td>
<td><a href="http://www.neiti.org.ng">www.neiti.org.ng</a></td>
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<td>6</td>
<td>Current</td>
<td>Transparency International - Nigeria</td>
<td>No web site</td>
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<td>10</td>
<td>Current</td>
<td>NERC</td>
<td>Web site not available</td>
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<td>13</td>
<td>2008</td>
<td>USEIA International database</td>
<td><a href="http://www.eia.doe.gov/emeu/international/contents.html">http://www.eia.doe.gov/emeu/international/contents.html</a></td>
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</tbody>
</table>
South Africa: PetroSA

Summary Report

Corporate Governance Highlights

Corporate Organization and Ownership
PetroSA is a wholly-owned entity of the government of the Republic of South Africa.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
President and CEO, Chief Financial Officer, Company Secretary, Vice President: Operations, New Venture Upstream, New Ventures Midstream, Trading Supply and Logistics, Strategy & Planning

Independent Board Members
Members of BOD are not independent.

Is chairman also minister of energy or otherwise appointed by head of state?
No

Operations Highlights

Upstream Oil
PetroSA operates oil and gas exploration and production activities.

Midstream Oil
PetroSA only operates crude oil storage in South Africa on behalf of the Strategic Fuel Fund. Petronet is the principal operator of South Africa's fuel pipeline system. It accounts for 3000 km of line and is responsible for petroleum storage and pipeline maintenance. Petronet uses a telecontrol technology to monitor the pipeline. A new project is being evaluated with Mozambique's Pande Gas for a multiproduct pipeline corridor between Gauten and Durban. Operates crude storage tanks in Saldanha Bay for the storing and maintaining strategic supply for South Africa on behalf of the government.

Downstream Oil
PetroSA does not operate refining assets. South Africa has the second largest refining capacity in Africa (488,297 B/D) after Egypt (726,250 B/D). A number of companies own and operate refineries. Refined products are sold in the South African market and exported to the Indian and Atlantic basins.

Upstream Natural Gas
PetroSA conducts natural gas E&P. The South African government has provided additional investment money for the exploration of natural gas in fields in Mossel Bay. Government agencies are involved in the natural gas industry to promote and develop natural gas exploration and production in South Africa. Some of the companies active in natural gas exploration are: iGAS, PetroSA, Petroleum Agency of South Africa and Petronet.

Midstream Natural Gas
Petronet, the principal operator of South Africa's fuel pipeline system, also transports natural gas. Natural gas from Mozambique is imported through a 536 mile pipeline which is jointly owned by the governments of South Africa and Mozambique. There is currently a plan to build a pipeline which would transport natural gas from Namibia to Cape Town.

Downstream Natural Gas
South Africa produces a small amount of natural gas and uses it in synthetic fuel production at PetroSA's 36,000 B/D Mossel Bay GTL facility. The quality of petrochemicals exceeds most international regulatory and environmental specifications. Marketing and sales are activities carried and supervised by the Trade, Supply and Logistics Department at PetroSA.

Other
PetroSA does not engage in activities outside of its core oil and gas businesses.

Operations Performance Highlights (2004-2007; not all years or data reported)

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
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<tr>
<td>Upstream: Average Proved Oil Reserves (MM Barrels)</td>
<td>5,700</td>
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<tr>
<td>Upstream: Average Proved Gas Reserves (BCF)</td>
<td>39</td>
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<tr>
<td>Upstream: Average Annual Oil Production (MM Barrels)</td>
<td>19</td>
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<tr>
<td>Upstream: Average Annual Natural Gas Production (BCF)</td>
<td>No data</td>
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</table>
**Downstream: Average Annual Refinery Production (MM Barrels)**

<table>
<thead>
<tr>
<th>Financial Performance Highlights (2004-2007; not all years or data reported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Average Total Revenues ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average Total Assets ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average EBIT ($Millions)</td>
</tr>
<tr>
<td>Consolidated Average Net Income ($Millions)</td>
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**Categorization Indicators**

<table>
<thead>
<tr>
<th>Categories:</th>
<th>Scores:</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>69</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>62</td>
</tr>
<tr>
<td>Commercialization</td>
<td>100</td>
</tr>
<tr>
<td>Fiscal Regimes</td>
<td>75</td>
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<tr>
<td>Resource Endowment</td>
<td>3</td>
</tr>
<tr>
<td>Oil Dependency</td>
<td>96</td>
</tr>
<tr>
<td>Local Contribution</td>
<td>0</td>
</tr>
<tr>
<td>Sector and Trade Openness</td>
<td>67</td>
</tr>
<tr>
<td>Average</td>
<td>67</td>
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</table>

**Worldwide Governance Indicators**

**Trends and Issues**

South Africa's economy and political leadership is vital to the rest of the continent. South Africa is a leader in conversion technologies (coal to liquids, gas to liquids) and clearly is moving to parlay that expertise into ventures that can enhance the national and regional energy portfolios. South Africa has also been a leader in building transparency and operating independent, well supported energy regulatory functions. These important attributes need to be strengthened for the country to continue on its path of economic integration and social improvement.
## Data Table

<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>1</td>
<td>The Petroleum Oil and Gas Corporation of South Africa, PetroSA, is the sole upstream NOC for the country. Petronet is the State-owned operator of the national fuel pipeline system.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>1</td>
<td>PetroSA is a wholly-owned entity of the government of the Republic of South Africa.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td></td>
<td></td>
<td>Not listed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td></td>
<td></td>
<td>Not listed</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>1</td>
<td>President and CEO, Chief Financial Officer, Company Secretary, Vice President: Operations, New Venture Upstream, New Ventures Midstream, Trading Supply and Logistics, Strategy &amp; Planning</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>1</td>
<td>Members of BOD are not independent.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment). Comment if they can be readily removed.</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td>1</td>
<td>Roles and policy statements are well defined in PetroSA organizational structure.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008</td>
<td>2</td>
<td>PetroSA BOD has the power to lead the company towards the established goals set by the BOD itself while following the policies made by the Department of Mines and Energy.</td>
</tr>
</tbody>
</table>

*Source: A Citizen’s Guide to National Oil Companies*
<table>
<thead>
<tr>
<th>Indicator Category</th>
<th>Indicator Description</th>
<th>Indicator (Query)</th>
<th>Year of Source of Data</th>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2008</td>
<td>2</td>
<td>Budget is not completely predictable and is not separate from the Government. The Department of Minerals and Energy, through its Minister, evaluates and approves the final budget PetroSA will receive each year.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>1</td>
<td>PetroSA has the authority to partner with other entities in order to perform any operation.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>1</td>
<td>A mission statement is in place. &quot;To become the leading provider of hydrocarbons and related quality products by leveraging its proven technologies and harnessing its human capital for the benefit of its stakeholders.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td>2008</td>
<td>1</td>
<td>Financial information discloses operating cash flow figures. However, neither capital expenditures nor the amount of revenue for reinvestment are available.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td>2008</td>
<td>1</td>
<td>Although PetroSA does not participate in any transparency initiative, data is internally audited and available to the public.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008</td>
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<td>PetroSA has developed policies within its HR department to ensure the attraction, development and retention of talented professionals.</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, brief description of reporting on noncommercial objectives</td>
<td>2008</td>
<td>1</td>
<td>PetroSA is involved in Corporate Social Investments focusing on education, health, environment, community development.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>Based on available information, extent of non-commercial obligations</td>
<td>2008</td>
<td>1</td>
<td>Environmental protection</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td>2008</td>
<td>2</td>
<td>PetroSA operates oil and gas exploration and production activities.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Does the NOC operate abroad?</td>
<td>2008</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream oil pipelines, storage, shipping</td>
<td>2008</td>
<td>1</td>
<td>PetroSA only operates crude oil storage on behalf of the Strategic Fuel Fund. Petronet is the principal operator of South Africa's fuel pipeline system. It accounts for 3000 km of line and responsible for petroleum storage and pipeline maintenance. Petronet uses a telecontrol technology to monitor the pipeline. A new project is being evaluated with Mozambique's Pande Gas for a multiproduct pipeline corridor between Gauten and Durbang. Operates crude storage tanks in Saldanha Bay for the storing and maintaining strategic supply for South Africa on behalf of the government.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
<td>2008</td>
<td>3</td>
<td>PetroSA does not operate refining assets. South Africa has the second largest refining capacity in Africa (488,297 B/D) after Egypt (726,250 B/D). A number of companies own and operate refineries. Refined products are sold in the South African market and exported to the Indian and Atlantic basins.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Upstream natural gas E&amp;P</td>
<td>2008</td>
<td>3</td>
<td>PetroSA conducts natural gas E&amp;P. The South African government has provided additional investment money for the exploration of natural gas in fields in Mossel Bay. Government agencies are involved in the natural gas industry to promote and develop natural gas exploration and production in South Africa. Some of these companies active in natural gas exploration are: iGAS, PetroSA, Petroleum Agency of South Africa and</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
<td>2008</td>
<td>3</td>
<td>Petronet. The principal operator of South Africa’s fuel pipeline system, also transports natural gas. Natural gas from Mozambique is imported through a 536 mile pipeline which is jointly owned by the governments of South Africa and Mozambique. There is currently a plan to build a pipeline which would transport natural gas from Namibia to Cape Town.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
<td>2008</td>
<td>1</td>
<td>South Africa produces a small amount of natural gas and uses it in synthetic fuel production at PetroSA’s 36,000 B/D Mossel Bay GTL facility. The quality of petrochemicals exceeds most international regulatory and environmental specifications. Marketing and sales are activities carried and supervised by the Trade, Supply and Logistics Department at PetroSA.</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Other (power generation, etc)</td>
<td>2008</td>
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<td>PetroSA does not engage in activities outside of its core oil and gas businesses.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement rate (BOE, %)</td>
<td></td>
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<td>1,911%</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg reserve replacement cost ($/BOE)</td>
<td></td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE reserves (%)</td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in BOE production (%)</td>
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<td>-21%</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
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<td>No data</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
<td></td>
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<td>No data</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
<td>Source</td>
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</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
<td></td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
<td></td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
<td></td>
<td>99%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg reinvestment risk (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on assets (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
<td></td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
<td></td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>2</td>
<td>The Department of Minerals and Energy has the Hydrocarbons, Energy Planning and Clean Energy Branch as a responsible entity to regulate and promote hydrocarbon energy carriers; and to ensure integrated energy planning through policy development for the environment and renewable technology and provision of administrative services.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>2008</td>
<td>1</td>
<td>PetroSA has defined the necessary roles and policies for every operating activity to reduce possible conflicts of interests.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>Objectives are available to public but not ranked. Plans are to diversify into other petroleum industry activities such as gas development and associated infrastructure and services, GTL technology commercialization, downstream marketing and improve the security of supply (fuel, oil and gas) to the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td></td>
<td></td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>2008</td>
<td>1</td>
<td>No participation in EITI and no other transparency initiative are presented.</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td>2008</td>
<td>1</td>
<td>The fiscal regime along with the budget evaluation and approval by National Energy Regulator of South Africa (NERSA), appear to have enabled sufficient capital investment to increase PetroSA profitability margins.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for investment grade NOC credit ratings</td>
<td>2008</td>
<td>1</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td>2008</td>
<td>1</td>
<td>Yes, NERSA and the Department of Minerals and Energy work together to evaluate PetroSA plans and feasibility to accomplish goals and targets set by the BOD. All targets and strategies are made on behalf of the government of South Africa to strengthen exploration, expand production and ensure domestic demand is met.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td>2008</td>
<td>3</td>
<td>NERSA regulates policy over the entire South African energy industry. NERSA has created regulations and laws to promote participation in the hydrocarbon industry by local and foreign companies and competition in the South African market.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td>2008</td>
<td>3</td>
<td>PetroSA is responsible for managing and promoting the licensing of oil and natural gas exploration. International Oil Companies involved in South Africa's upstream activities are: Anschutz International, BHP Billiton, Forest Oil international, and Pioneer Natural Resources.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2008</td>
<td>3</td>
<td>PetroSA holds 60% of Sable and Pioneer Natural Resources 40%.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td>2008</td>
<td>3</td>
<td>PetroSA, its partners and IOC's all use turnkey contracts.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td>2008</td>
<td>1</td>
<td>Vertical</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td></td>
<td>No. They operate international offices for product sales, customer interface, and partnership management.</td>
</tr>
<tr>
<td>Indicator Category</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td>2008</td>
<td>1</td>
<td>Yes. PetroSA has offices in Europe, the U.S., and Middle East. In Africa, they have offices in Nigeria, Equatorial Guinea, Egypt and Sudan. Offices are active in marketing PetroSA products and technologies such as GTL. But PetroSA was also awarded 3 exploration blocks in Equatorial Guinea, and has an oil concession in Egypt. The company also has upstream prospecting operations in Nigeria, Gabon, Namibia and Mozambique.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td>2008</td>
<td>3</td>
<td>Upstream activities are mainly carried out by PetroSA. However, non-NOCs are currently involved in such activities: Anschutz International, BHP Billiton, Forest Oil Int., and Pioneer Natural Resources.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td>3</td>
<td>Upstream competition is open to foreign competitors and promoted by South Africa's government. No partnership with PetroSA is required.</td>
</tr>
<tr>
<td>Other Category</td>
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<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td>2008</td>
<td>3</td>
<td>Upstream venture arrangements appear to be successful. Some reported examples of new developments include BHP Billiton's project to drill offshore in Western South Africa to increase oil reserves and production and Mozambique's Pande Gas for a multiproduct pipeline corridor between Gauten and Durbang.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td>2008</td>
<td>1</td>
<td>PetroSA has international offices to manage its partnership and customer relationships.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td>2008</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td>2008</td>
<td>4</td>
<td>PetroSA does not operate outside of its core businesses.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff</td>
<td>2008</td>
<td>1</td>
<td>NERSA and the Department of Minerals and Energy have regulatory and policy oversight for hydrocarbons. NERSA is a highly regarded independent regulator and a model for many other countries.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. brief description: HC agency enforcement powers</td>
<td>2008</td>
<td>2</td>
<td>The Department of Minerals and Energy is responsible for supervision of energy services quality, access to sources of energy and fair pricing. PetroSA is obliged to conduct all activities within the frameworks established by the Department of Minerals and Energy.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators</td>
<td>2008</td>
<td>4</td>
<td>The National Energy Regulator of South Africa ensures that all processes, in which PetroSA is involved, are in compliance with the established law and policies in place.</td>
</tr>
<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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</tr>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td>2008</td>
<td>2</td>
<td>The Department of Minerals and Energy is responsible for addressing public issues regarding hydrocarbon resources and infrastructure. The department has strategies and procedures to resolve hydrocarbon-related disputes.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td>2008</td>
<td>2</td>
<td>Fuels prices reflect international and local market conditions. The Department of Minerals and Energy posts comprehensive information on fuels price trends as well as taxes and levies.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td>2008</td>
<td>1</td>
<td>PetroSA Corporate Social Investment (SCI) is considered an important pillar of PetroSA's transformation to integrate social functions within PetroSA business. Primary objectives are: Contribute to stabilizing social upliftment and economic development in the country, create sustainable value in the secondary economy and empower disadvantaged communities to become more healthy, secure and self-sufficient. The focus areas are: Education, Health, Environment, and Community Development.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td>$2,064.63</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td>Large amount of information disclosed on South Africa's NOC; data verifiable, reliable and available is provided by PetroSA, National Energy Regulator of South Africa, and the Department of Minerals and Energy.</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Indicator Category</td>
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<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td>2008</td>
<td>1</td>
<td>PetroSA was formed in 2002 from the merger of three previous entities: Mossgas LTD, Soekor LTD, and Strategic Fuel Fund Association. President Thabo Mbeki launched PETROSA in 2002 as the Petroleum Oil and Gas Corporation of the Republic of South Africa.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td>Trends and issues related to country hydrocarbon sector endowments and performance</td>
<td></td>
<td></td>
<td>South Africa's economy and political leadership is vital to the rest of the continent. South Africa is a leader in conversion technologies (coal to liquids, gas to liquids) and clearly is moving to parlay that expertise into ventures that can enhance the national and regional energy portfolios. South Africa has also been a leader in building transparency and operating independent, well supported energy regulatory functions. These important attributes need to be strengthened for the country to continue on its path of economic integration and social improvement.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td>34,166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
<td>547</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td>200.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td>-12.39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td>-3.92%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td>15,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td>353.00</td>
<td></td>
<td></td>
</tr>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td>15,060.86</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td>Audited</td>
<td></td>
<td></td>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>99.60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>99.88%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>11.15%</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
<td>No</td>
<td></td>
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</tbody>
</table>
## Sources of Information

<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>2008</td>
<td>PetroSA web site</td>
<td><a href="http://www.petrosa.co.za">www.petrosa.co.za</a></td>
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<tr>
<td>3</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - South Africa</td>
<td><a href="http://www.eia.doe.gov">www.eia.doe.gov</a></td>
</tr>
</tbody>
</table>
Corporate Governance Highlights

Corporate Organization and Ownership
Sudapet (Sudan Petroleum Company Ltd.) was established in 1997. It is a wholly owned company of the Ministry of Energy & Mining, incorporated under the Petroleum Resources Laws of the Republic of the Sudan.

Shares Controlled by Government
100%

Domestic, International Exchanges for Equity Listings
Not listed

Board of Directors Structure
No data

Independent Board Members
No data

Is chairman also minister of energy or otherwise appointed by head of state?
No data

Operations Highlights

Upstream Oil
Sudapet operates only in Sudan.

Midstream Oil
None

Downstream Oil
Sudapet is not involved. Khartoum Refining Co. operates downstream as a 50-50 partnership between the Government of Sudan and China National Petroleum Corp. Port Sudan refinery operates as a 50-50 partnership between the Government of Sudan and Petronas.

Upstream Natural Gas
None

Midstream Natural Gas
None

Downstream Natural Gas
None

Other
No

Operations Performance Highlights (2004-2007; not all years or data reported)

Upstream: Average Proved Oil Reserves (MM Barrels) No data
Upstream: Average Proved Gas Reserves (BCF) No data
Upstream: Average Annual Oil Production (MM Barrels) No data
Upstream: Average Annual Natural Gas Production (BCF) No data
Downstream: Average Annual Refinery Production (MM Barrels) No data

Financial Performance Highlights (2004-2007; not all years or data reported)

Consolidated Average Total Revenues ($Millions) No data
Consolidated Average Total Assets ($Millions) No data
Consolidated Average EBIT ($Millions) No data
Consolidated Average Net Income ($Millions) No data
# Sudan: Sudan Petroleum Company Ltd. (Sudapet)

## Categorization Indicators

<table>
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<th>Categories</th>
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<td>Public Sector Governance</td>
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<tr>
<td>Commercialization</td>
<td>0</td>
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<tr>
<td>Fiscal Regimes</td>
<td>50</td>
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<tr>
<td>Resource Endowment</td>
<td>1</td>
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<tr>
<td>Oil Dependency</td>
<td>83</td>
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<td>Local Contribution</td>
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<tr>
<td>Sector and Trade Openness</td>
<td>34</td>
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<tr>
<td>Average</td>
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## World Governance Indicators

![World Governance Indicators Chart]

## Trends and Issues

Sudan is clearly poised to play a role as a major new African, and international, producing and exporting country. Management of internal and regional politics and conflicts is, however, key to success. Diversion of revenues away from a focus on national development and benefits would undermine Sudan’s success. International scrutiny of operations and commercial arrangements in Sudan is growing more intense, as is disagreement among a variety of OECD and Asian governments regarding the transparency and integrity of Sudan’s hydrocarbon sector.
### Database

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<tr>
<th>Indicator Category</th>
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<tbody>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Sole NOC or one of cluster of NOCs and other sovereign enterprises in country</td>
<td>2008</td>
<td>3</td>
<td>Sudapet is the main NOC with various operating subsidiaries. Other sovereign entities appear to exist such as NilePet (which also appears to act as an NOC) for South Sudan and Khartoum State which has a share in a block.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Number of NOCs of country</td>
<td>2008</td>
<td>1 or more</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Description of incorporation and ownership</td>
<td>2008</td>
<td>2,3</td>
<td>Sudapet (Sudan Petroleum Company Ltd.) was established in 1997. It is a wholly owned company of the Ministry of Energy &amp; Mining, incorporated under the Petroleum Resources Laws of the Republic of the Sudan.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>% shares controlled by government</td>
<td>2008</td>
<td>100%</td>
<td>No data</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where shares are listed</td>
<td>2008</td>
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<tr>
<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Domestic, international exchanges where bonds are traded</td>
<td>2008</td>
<td>Not traded</td>
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<td>Corporate Governance</td>
<td>Ownership Structure and Its Organization</td>
<td>Company files form 20-F with SEC?</td>
<td>2008</td>
<td>No</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Does a BOD exist</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Description of BOD and structure</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Is chairman also minister of energy or otherwise appointed by head of state</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Are any BOD members considered independent (external) and, if so, how are they appointed</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Board of Directors (BOD)</td>
<td>Term of service (years, with re-appointment), Comment if they can be readily removed</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Description of role and policy statements</td>
<td>2008</td>
<td>No data</td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Role of BOD</td>
<td>Based on available information, does BOD have power, impact, decision making authority</td>
<td>2008</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
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<tr>
<td>Corporate Governance</td>
<td>Recruitment/Replacement Key Executives</td>
<td>General process for recruitment, replacement of key execs and senior managers</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes</td>
<td>Level of NOC budget authority. Comment on the general decision flow within NOC and between NOC and government for major projects.</td>
<td>2008</td>
<td>1,2,3</td>
<td>There appears to be alignment between Sudapet and national budgets.</td>
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<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Based on available information, is NOC budget process predictable and separate from government</td>
<td>2008</td>
<td>1,2,3</td>
<td>It appears that Sudapet prepares its budget subject to government approval.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Decision Making Processes, Budget Autonomy</td>
<td>Does the NOC have authority to partner with other entities?</td>
<td>2008</td>
<td>1,2,3</td>
<td>Sudapet appears to have authority for partnerships and is engaged in a number of shares of blocks.</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mission and Objectives</td>
<td>Does NOC have a mission statement and, if so, what are key elements</td>
<td>2008</td>
<td>2</td>
<td>&quot;Sudapet is an oil and gas company that specializes in E&amp;P, G&amp;G surveys, research and studies, O&amp;M. It is a business company that operates in an economic and commercial manner to maximize its shareholder's value. It professionally aims at growth and profitability; safe and effective operations; development and training of the national workforce; adding value and increasing reserves and production; and contributing to the development of the Sudanese nation.&quot;</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Sources of Capital</td>
<td>Based on available information, budgeting process and policy including % of cash flow/revenue available for reinvestment</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Disclosure/Transparency Policy</td>
<td>Disclosure of audited data and other indications of disclosure and transparency</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Skill Base</td>
<td>Based on available information, NOC demographics (% management, % technical, other descriptors)</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Corporate Governance</td>
<td>Incentives/Career Management</td>
<td>Based on available information, HR promotion and professional development policies</td>
<td>2008</td>
<td>1,2,3</td>
<td>Sudapet has limited technical and financial resources.</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Year of Source of Data</td>
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<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>2008</td>
<td>1,2,3</td>
<td>Based on available information, brief description of reporting on noncommercial objectives. Sudapet appears not to engage directly in noncommercial objectives. Revenues provided to the Sudanese government would be used for these purposes.</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Full Disclosure and Measurement of Non-commercial Objectives</td>
<td>2008</td>
<td>No data</td>
<td>Based on available information, extent of non-commercial obligations.</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Upstream oil E&amp;P. Where does it operate (solely in the country or abroad-name countries)? Does it have sole access to country's resources?</td>
<td></td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Does the NOC operate abroad?</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Midstream oil pipelines, storage, shipping</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Downstream oil refining &amp; marketing, petrochemicals</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Upstream natural gas E&amp;P</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Midstream natural gas pipelines, storage, LNG</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Downstream natural gas distribution, NGL sales, petrochemicals</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Other (power generation, etc)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Avg reserve replacement rate (BOE, %)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Avg reserve replacement cost ($/BOE)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Change in BOE reserves (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>2008</td>
<td>1,2,3</td>
<td>Change in BOE production (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream operating cash flow/upstream capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream exploration and production expenses ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg production costs excluding production taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg upstream after-tax income/revenues (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg earnings before interest &amp; taxes ($/BOE)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income after all taxes ($/BOE)</td>
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<td>Operating Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg operating cash flow vs costs incurred (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>After tax return on assets</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refinery utilization rate (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in total refining production (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Change in refinery capacity (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg income from operations per unit volume ($M/barrel)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg refining and marketing operating cash flow/capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Operating Performance</td>
<td>Avg pre-tax return on assets (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg total operating cash flow/total capital expenditures (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg operating margin (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg profit margin (%)</td>
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<tr>
<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg effective tax rate (%)</td>
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<td>Avg reinvestment risk (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg debt profile (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg return on total capital employed (%)</td>
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<td>Value Creation Metrics</td>
<td>Financial Performance</td>
<td>Avg fiscal contribution to State (%)</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a publicly articulated role of the hydrocarbon sector with respect to national development objectives</td>
<td>2008</td>
<td>4</td>
<td>With high oil prices and active investments, Sudan's growth rate has reached 10% per year. Sudan still sees itself as an agricultural society; while they want to benefit from oil revenues, they also want to continue supporting the agriculture sector. Employment in the agricultural sector constitutes 80% of the total national work force.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, clear definition of the roles of policy, commercial operation and regulation and assignment to specific entities avoiding conflicts of interest</td>
<td>No information is available. Since Sudapet is owned by the ministry, it appears that functions are aggregated.</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of publicly stated objectives ranked by priority for NOC(s)</td>
<td>No data</td>
<td></td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, presence of a strategy to transfer NOC non-commercial objectives to government or other agencies as capacity becomes available</td>
<td>No data</td>
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<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>Based on available information, transparent hydrocarbon sector revenue management including revenue distribution within the country</td>
<td>No data</td>
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<tr>
<td>Indicator Category</td>
<td>Indicator Description</td>
<td>Indicator (Query)</td>
<td>Year of Source of Data</td>
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<tr>
<td>Other Factors</td>
<td>Public Sector Governance</td>
<td>NOC and/or country participate in EITI and/or other transparency initiatives</td>
<td>Current</td>
<td>5,6</td>
<td>Sudan is not a candidate country for EITI. Transparency International indicates a national chapter but no contact information is provided. Other transparency programs do not appear to operate in the country.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, do hydrocarbon sector fiscal regimes allow for sufficient capital investment</td>
<td></td>
<td></td>
<td>It appears that fiscal regimes are adequate for capital investment. Proved reserves and production have been rising. Sudapet enters into JVs with outside investors, mostly from Asia. However, fiscal systems do not seem to be at par with traditional systems around the world and contractual arrangements are opaque. Sudan's resource endowments and internal politics may attract participation on a negotiated basis.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Fiscal Sustainability</td>
<td>Based on available information, are hydrocarbon sector fiscal regimes appropriate for the development stage of the domestic resource base</td>
<td></td>
<td></td>
<td>Investment is flowing, production is rising. Industry expectations are for Sudan to become a significant producer and join OPEC.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Hydrocarbon law to facilitate competitive upstream investment</td>
<td></td>
<td></td>
<td>Competition is dubious; investments appear to be mostly based on government relations and negotiated arrangements, and many NOC-NOC partnerships are in place in particular with Asian entities.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Access to Reserves</td>
<td>Based on available information, existence of negotiated contracts/agreements for upstream investment</td>
<td></td>
<td></td>
<td>Negotiated contracts and agreements clearly exist.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, types of joint ventures, role of NOC(s)</td>
<td>2008</td>
<td>2</td>
<td>Sudapet engages in JVs primarily with other NOCs: CNPC, ONGC and Petronas among others. Only 2 IOCs are listed among Sudapet's partners. Sudapet’s participating interests in different blocks in Sudan range between 5% and 30%.</td>
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<tr>
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<td>Indicator Description</td>
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<tr>
<td>Other Factors</td>
<td>Operating Strategy</td>
<td>Based on available information, extent of turnkey contracts used directly by NOC(s)</td>
<td></td>
<td>Sudapet's partners hold the turnkey arrangements or, in some cases (CNPC) may provide their own services.</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Business Integration</td>
<td>Vertical, horizontal integration</td>
<td></td>
<td>Sudapet is primarily an upstream company.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No, only the passive agreement through its subsidiary in Ethiopia as mentioned above.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international BOE production as % avg total company BOE production</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company BOE production from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Does NOC make investments abroad</td>
<td></td>
<td>No direct investments</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery throughput as % total refinery throughput</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery throughput from international operations (%)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Avg company international refinery capacity as % company total refinery capacity</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>International Presence</td>
<td>Change in company refinery capacity from international operations (%)</td>
<td></td>
<td>No data</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Non-NOC participants in upstream</td>
<td></td>
<td>There are only 2 non-NOCs operating in Sudan's upstream.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in upstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>Arrangements appear to be negotiated. Competition appears to be limited. Sudapet must be a JV partner.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Competition level in midstream, downstream including non-NOC participants and requirement to include NOC as partner</td>
<td></td>
<td>No data</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, prevalence and success of NOC/non-NOC alliances, joint ventures</td>
<td></td>
<td>There are limited NOC/non-NOC JVs.</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Partial privatization of the NOC (as measured by ownership structure)</td>
<td></td>
<td>Not planned.</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, level and quality of NOC international operations</td>
<td></td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Commercialization</td>
<td>Based on available information, percent of non-core commercial activities in overall operations</td>
<td></td>
<td></td>
<td>No data</td>
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</tbody>
</table>
| Other Factors      | Regulation            | Presence of independent, well-funded and trained regulatory agencies, HC agency name, budget, number of staff | 2007 | 1 | "In October 2005, Sudan established the National Petroleum Commission (NPC) to bolster the development of the country’s oil resources. NPC allocates new oil contracts, and ensures equal sharing of oil revenues between the national government in Khartoum and the Government of South Sudan (GoSS). NPC is responsible for resolving duplicate oil contract issues in which the GoSS has allocated contracts overlapping contracts previously granted by Khartoum (Total and White Nile Ltd. over Block B and the White Nile Petroleum Operation Company (WNPOC) and Ascom Group of Moldavia over Block 5b). President Bashir is believed to co-chair the NPC with Vice-President Salva Kiir, who also heads the GoSS."
<p>| Other Factors      | Regulation            | NOCs are compelled to adopt practices that would provide results similar to those in competitive markets with price, access to and quality of energy services. Brief description: HC agency enforcement powers | | | No data |
| Other Factors      | Regulation            | Regulators assure market transparency and good quality, unbiased data and information. HC agency independence indicators | | | There is no independent regulatory body. |</p>
<table>
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<tbody>
<tr>
<td>Other Factors</td>
<td>Regulation</td>
<td>Regulators effectively resolve disputes and conflicts and address public concerns about development of and access to hydrocarbon resources and infrastructure. HC agency dispute resolution policy</td>
<td></td>
<td>Disputes appear to be managed at the presidential (head of state) level.</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of hydrocarbon price subsidies ($/BOE production) provided by NOC and/or government. brief description of subsidy program, approach, cost</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Provision and level of direct NOC funding of country social and economic programs. brief description of programs and support</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Measure of NOC employees relative to total assets ($ M)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Compensation obligations relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Financial performance relative to workforce ($ M)</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Comments</td>
<td>Quality of Data</td>
<td>Availability, extent, reliability of data provided by NOC(s) and governments</td>
<td></td>
<td>Very little information is available from either the government or NOC.</td>
</tr>
<tr>
<td>Other Comments</td>
<td>Longevity of NOC</td>
<td>Based on available information, history and persistence of NOC(s)</td>
<td></td>
<td>Sudapet is a relatively young company, having been established in 1997. The combination of Sudan's resource endowments along with the prevalence of NOC-NOC partnerships suggests that Sudapet will be long lived.</td>
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</table>
### Sudan: Sudan Petroleum Company Ltd. (Sudapet)

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<tr>
<td>Other Comments</td>
<td>Country Status</td>
<td></td>
<td></td>
<td>Sudan is clearly poised to play a role as a major new African, and international, producing and exporting country. Management of internal and regional politics and conflicts is, however, key to success. Diversion of revenues away from a focus on national development and benefits would undermine Sudan's success. International scrutiny of operations and commercial arrangements in Sudan is growing more intense, as is disagreement among a variety of OECD and Asian governments regarding transparency and integrity of Sudan's hydrocarbon sector.</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>Number of employees</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Non-commercial Objectives</td>
<td>BOE production per employee (oil and natural gas production and/or refinery throughput; BOE/employee)</td>
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<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>BOE R/P (years)</td>
<td></td>
<td>42.75</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Net oil and gas export revenues as share of overall export revenues (oil trade balance as % of exports of goods and services)</td>
<td></td>
<td>88.91%</td>
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<tr>
<td>Other Factors</td>
<td>Oil Dependency</td>
<td>Total oil and gas revenues as a share of GDP (%)</td>
<td></td>
<td>17.04%</td>
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<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY oil reserves (MM Barrels)</td>
<td></td>
<td>6,614.50</td>
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<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Avg EOY natural gas reserves (BCF)</td>
<td></td>
<td>3,000.00</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Total all source BOE reserves (MM Barrels)</td>
<td></td>
<td>7,131.74</td>
</tr>
<tr>
<td>Other Factors</td>
<td>Resource Endowment</td>
<td>Audited or unaudited?</td>
<td></td>
<td>Unaudited</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of country BOE reserves</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic reserves as % of total company reserves</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company domestic BOE production as % of country BOE production</td>
<td></td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company primary distillation capacity as % of total country primary distillation capacity</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Company refinery throughput as % of total country refinery throughput</td>
<td>No data</td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, reserves (%)</td>
<td>92.75%</td>
<td></td>
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<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country oil/natural gas split, production (%)</td>
<td>100.00%</td>
<td></td>
</tr>
<tr>
<td>Other Factors</td>
<td>Operating Conditions</td>
<td>Country BOE production as % of total country BOE consumption</td>
<td>486.17%</td>
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<tr>
<td>Other Factors</td>
<td>Trade Openness</td>
<td>WTO Membership</td>
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<tr>
<td>Other Factors</td>
<td>Competition</td>
<td>OPEC Membership</td>
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### Sources of Information

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<tr>
<td>1</td>
<td>2007</td>
<td>USEIA Country Analysis Brief - Sudan</td>
<td><a href="http://www.eia.doe.gov/emeu/cabs/Sudan/Oil.html">http://www.eia.doe.gov/emeu/cabs/Sudan/Oil.html</a></td>
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<tr>
<td>2</td>
<td>2008</td>
<td>Sudapet web site</td>
<td><a href="http://www.sudapet.sd/about.htm">http://www.sudapet.sd/about.htm</a></td>
</tr>
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<td>3</td>
<td>2008</td>
<td>European Coalition on Oil in Sudan</td>
<td><a href="http://www.ecosonline.org/index.cfm?event=showcompanies&amp;page=companies">http://www.ecosonline.org/index.cfm?event=showcompanies&amp;page=companies</a></td>
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<td><a href="http://eitransparency.org/">http://eitransparency.org/</a></td>
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