The Economics of Commodity Trading Firms

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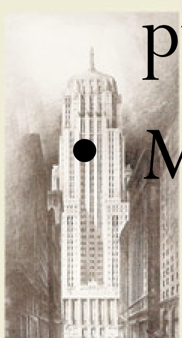
Fundamental Facts About CTFs

- CTFs transform physical commodities
- CTFs buy and sell commodities, so are focused on margins (price differentials) not on flat price levels
- Physical business, with profitability driven by volumes and margins
- Extensive users of derivatives but as hedgers of flat price risk
- Main exposure is to basis risk



Commodity Transformations

- CTFs perform commodity transformations at all levels of the value chain
- Transformation in space (transportation)
- Transformation in time (storage)
- Transformation in form (processing)
- Different firms focus on different transformations and different commodities: substantial diversity among firms

Trading

- Spreads and pricing relationships, not flat prices, are the essence of physical commodity trading
- Trading and managing the risk of such price exposures requires an understanding of the value chain
- CTFs specialize in understanding the value chain and enhancing value by identifying physical "arbitrages" and managing the associated risks

Commodity Trading Firms: Agents of Transformation

- Commodity trading firms specialize in making transformations in space, time, and form
- As such, they are focused on price relationships (spreads) rather than flat prices
- Flat prices matter primarily to the the extent that they affect (a) volumes/margins, and (b) financing constraints

Flat Prices & Volumes/Margins

- Relationships between flat prices and volumes/margins depends on whether supply or demand shocks are driving flat prices
- High prices due to high demand: good for margins and volumes
- High prices due to low supply: bad for margins and volumes
- Margins/volumes *much* more stable over the cycle than prices

Paper Trading by CTFs

- CTFs are extensive users of listed and OTC derivatives, but primarily as hedgers
- Use derivatives to exchange flat price risk for basis (spread) risk
- Typically major sellers of futures/swaps to hedge their inventory holdings
- Speculative trading focuses on spread trades, rather than directional trades

Asset Ownership By Commodity Trading Firms

- Commodity trading firms can transform commodities without owning assets (charter a ship; rent storage space)
- Commodity trading firms quite diverse in their asset ownership patterns
- Asset light firms
- Asset heavy firms

Trends in Asset Ownership

- Widely believed that commodity trading firms becoming more asset heavy
- In reality, considerable diversity in trends across commodity trading firms

Why Own Assets?

- Common to say asset ownership provides optionality, but you can have optionality without ownership (shipping is a great example, or offtake agreements)
- Asset ownership can mitigate “transactions costs”, notably costs associated with “holdups”
- Holdups can occur when an asset is specialized and there are few available substitutes

Example: Storage Facilities

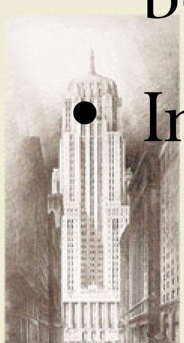
- Efficient utilization of storage rapid response to supply and demand shocks
- The owner of a storage facility can attempt to extract concessions from a firm using the facility by threatening to delay access to the stored commodity (look at aluminum, cocoa)
- “Temporal specificity”
- The storer can avoid this problem by owning the asset

Logistics Assets

- Similar considerations pertain for other "midstream" assets, like terminals: rapid access to asset on an unpredictable basis necessary to execute arbitrage transactions
- Many midstream assets are also large scale, site specific, with few close substitutes, and users often move volumes sufficient to utilize a large fraction of capacity

Upstream Assets

- Some ownership of upstream assets by commodity traders (e.g., palm oil plantations)
- In some cases, transactions costs considerations seem to explain this: in the case of palm oil, desirable to locate processing plants on plantations, so holdups are avoided by having the same firm own both
- In other cases, notably mines, this seems less clear



Downstream Assets

- Considerable integration recently into downstream assets (e.g., fuel marketing)
- Transactions costs considerations seem important here:
- Flipside of disintegration by oil majors
- The development of robust spot markets for fuel means that majors don't need to own downstream assets to market their products

The Ownership of Commodity Traders

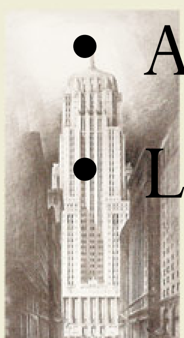
- Diversity here as well: some firms private, others public
- Trade off: better incentives under private ownership, but it limits ability to raise capital and limits ability of owners to diversify
- Relationship between asset intensity and ownership
- Uses of hybrid financing strategies to finesse trade off (perpetual debt; selling equity in asset-heavy subsidiaries)

Do Commodity Trading Firms Pose Systemic Risks?

- Post-crisis, it has been asserted that commodity trading firms pose systemic risk like banks do
- "Too big to fail"
- Commodity trading firms very different from banks, and hence do not pose even remotely similar systemic risks

Why Commodity Traders Aren't Systemically Risky

- Not really that big
- Balance sheets not "fragile" (no maturity transformation)
- Don't supply credit like banks do: mainly conduits of credit from banks to customers/suppliers
- Little concentration
- Assets redeployable
- Less vulnerability to major economic downturns



Why Commodity Traders Aren't Systemically Risky (con't)

- Historically, large disruptions to logistics networks have not had systemic effects (e.g., Japanese tsunami)
- Failures of commodity firms have not had systemic spillover effects: indeed, entire sectors (e.g., US merchant energy in 2002-2003) have suffered financial distress without major effects on the broader economy