Auditor-Provided Regulatory Advisory Services and Financial Reporting Quality: An Unintended Consequence of the Dodd-Frank Act

Hailey Ballew
Assistant Professor
Jones Graduate School of Business, Rice University
hailey.ballew@rice.edu

Amy G. Sheneman
Assistant Professor
Fisher College of Business, The Ohio State University
sheneman.2@osu.edu

In 2010, the Dodd-Frank Act increased regulatory requirements to strengthen the safety and soundness of the financial system. These requirements resulted in banks investing significantly to develop regulatory models, improve internal reporting, and create operational monitoring systems. This paper examines whether assistance by the bank's external auditor with meeting the new regulatory guidelines (regulatory advisory services) influences financial reporting quality, measured as the validity of the loan-loss provision, earnings persistence, and benchmark-beating. Using a difference-in-differences design, we find banks hiring their external auditor to provide regulatory advisory services are associated with a decline in financial reporting quality. Further, this relation is more pronounced for banks experiencing greater regulatory pressure and for banks with less effective audit committees. Taken together, the results are consistent with regulator concerns that financial reporting quality diminishes when external auditors also serve in an advisory capacity.

1. Introduction

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank) was enacted to restore investor confidence in the banking system and improve overall safety and soundness. Because of the short timeframe banks had to comply, Dodd-Frank inadvertently increased the demand for regulatory advisory services and several banks elected to use their external auditor to perform such services. Based on private conversations with members of the Public Companies Accounting Oversight Board (PCAOB), the PCAOB was unaware of external auditors providing such services to their clients. Motivated by the increased attention of regulators on the recent growth in advisory services, we re-examine the long-standing but unresolved question: do auditor-provided advisory services affect financial reporting quality?[1]

While prior research has examined various consequences of auditors performing advisory, or non-audit, services, our understanding remains limited for three reasons. First, regulators argue auditors who provide advisory services become more economically reliant upon their client and this reliance biases auditor judgement.[2] Practitioners suggest auditors learn from providing advisory services, creating knowledge spillover effects that lead to more effective and efficient audits. To date, the evidence is mixed.[3] Second, the channel through which advisory services impacts financial reporting quality has not been articulated (DeFond and Zhang 2014). Third,

---

[1] Steve Harris, PCAOB board member, states that the "revenue from consulting and advisory services collectively exceeds audit revenue for [Big Four firms]. This trend is important because the last time this occurred was prior to the adoption of the SEC independence rules and passage of the Sarbanes-Oxley Act. At that time, as some of you will recall, firms unsuccessfully tried to serve two roles – one as a supposed objective third party examining management's assertions and another as management's consultant, partner, or advocate" (Harris 2016).

[2] We refer to regulators as financial reporting regulators, such as the Financial Accounting Standards Board (FASB), Public Company Accounting Oversight Board (PCAOB), and the Securities and Exchange Commission (SEC). Such regulators do not include bank regulators.

[3] A limited number of studies show advisory services negatively impact financial statement quality (e.g., Frankel, Johnson, and Nelson 2002; Markelevich and Rosner 2013; Causholli, Chambers, and Payne 2014). The majority of studies fail to find an association between advisory services and financial reporting quality (e.g., Ashbaugh, LaFond, and Mayhew 2003; Chung and Kallapur 2003; DeFond, Raghunandan, and Subramanyam 2002; Kinney, Palmrose, and Scholz 2004).

because advisory services were restricted for all publicly traded U.S. firms simultaneously by the SEC independence rules and the Sarbanes-Oxley Act (SOX), it has been empirically challenging to determine the impact of advisory services on financial reporting quality in academic research (Karolyi 2009; Leuz 2007; Leuz and Wysocki 2016; Schneider, Church, and Ely 2006). Some argue that the lack of a sufficient comparison group is a primary cause for prior research concluding that advisory services do not hinder financial reporting quality.

Our study differs from prior research that investigates the impact of auditor-provided advisory services on financial reporting quality in several important ways. First, we exploit a recent regulatory change, Dodd-Frank, to the demand for advisory services in the banking industry. This regulatory change allows for tighter identification of an auditor independence concern beyond the traditional argument of economic bonding. While all banks in the sample must comply with the Dodd-Frank regulations, Dodd-Frank does not specify *how* the bank is to comply. We exploit this variation by comparing firms that employ their external auditor to meet regulatory compliance with firms that do not employ their external auditor.[4] This variation in the engagement of the external auditor for regulatory advisory services allows for a difference-in-differences research design and addresses the shortcoming noted in prior research of a lack of an identifiable comparison group. Second, prior studies examine *all* non-audit services provided by auditors, whereas this study focuses specifically on advisory fees that directly influence the measurement of financial statement accounts (i.e., regulatory advisory fees). Our study provides direct evidence that advisory services that influence financial reporting cause a degradation in financial reporting quality. Third, we address whether advisory services pose a threat to financial

---

[4] We acknowledge we are unable to observe whether firms not employing their external auditor elect to engage another third-party advisor or perform the regulatory compliance work internally due to data limitations. In Section 5.1, we use consulting and advisory fees (proxy for the extent of third-party involvement) and the number of employees (proxy for internal capacity) in the entropy balancing model.

reporting quality in the auditor regulatory regime of the PCAOB, which has not been the focus of the majority of studies in this literature.

We expect that providing regulatory advisory services strengthens the economic bond between auditor and client and, more important, increases the auditor's knowledge about the capital sensitivity of the bank, which leads to a reduction in financial reporting quality (e.g., capital and earnings management). Dodd-Frank created new stress testing requirements in which the bank assesses its capital adequacy under various economic scenarios by projecting balance sheets, net income, risk-weighted assets, post-stress capital levels, and regulatory capital ratios over a nine-quarter time period. The bank is also required to assess the adequacy of the capital planning process. The Dodd-Frank requirements directly affect the bank's ability to estimate losses in its most significant financial accounts. Therefore, we can directly link the regulatory advisory services to financial statement measurement.

We examine our research question in the context of financial reporting quality.[5] The primary proxy for financial reporting quality is the extent of capital and earnings management and, more specifically, the validity of the loan-loss provision. As the most prominent and significant accrual for banks, the loan-loss provision has been identified as a way for management to smooth and manipulate earnings as well as regulatory capital (Beatty, Chamberlain, and Magliolo 1995; Collins, Shackelford, and Wahlen 1995; Kim and Kross 1998; Ahmed, Takeda, and Thomas 1999; Liu and Ryan 2006; Beatty and Liao 2014).[6] In addition to the main proxy, we examine

---

[5] We are unable to examine outcome-based measures of financial reporting quality outcomes, such as restatements, because of a lack of variation (e.g., there is one restatement in our sample).

[6] In the banking industry financial reporting discretion has additional implications beyond earnings management as explicit capital adequacy calculations rely on GAAP inputs and can result in banks use of accounting discretion to improve regulatory capital.

other proxies of financial reporting quality, including earnings persistence and evidence of earnings management through the propensity to report small positive earnings changes.

We compare the change in financial reporting quality for firms engaging (not engaging) the external auditor as a regulatory advisor in the four-year period before and after the finalization of Dodd-Frank in 2011. We predict and find banks extensively employing the external auditor for regulatory compliance have a decline in loan-loss provision validity. We find a corresponding decrease in earnings persistence and an increase in the propensity to report small positive earnings changes. This evidence is consistent with regulators' concern that allowing external auditors to perform advisory services negatively affects financial reporting quality.

We conduct a series of additional tests designed to provide further support of the primary result. First, we examine the issue of self-selection. It is possible that characteristics associated with the choice of hiring the external auditor to perform regulatory advisory services are also related to financial reporting quality. To mitigate this concern, we re-perform our analyses using an entropy balanced matched sample and find consistent results. Second, we show that the association between employing the external auditor in a regulatory advisory capacity and a decline in financial reporting quality is concentrated in firms experiencing greater regulatory pressure (e.g., existence of a regulatory enforcement action). Third, audit committees are required to pre-approve any service performed by the external auditor. Prior literature finds audit committees have incentives to constrain opportunistic financial reporting (Srinivasan 2005; Badolato et al. 2014). Therefore, to bolster the main finding, we compare firms with more and less effective audit committees and find that the decline in financial reporting quality is concentrated in firms with less effective audit committees. Fourth, we validate our proxy for regulatory advisory services using hand-collected data from proxy statements and find consistent

results. Last, we perform a sensitivity test to address concerns that sample design choices related to asset size thresholds are driving the results. Together, these supplemental analyses provide additional support that the primary finding we document relates to employing the external auditor as the regulatory advisor and not an alternative explanation.

Our study contributes to the literature by showing that advisory services provided by the external auditor *do* have a negative impact on financial reporting quality. This finding is particularly important as our setting focuses on the current auditor regulatory regime (2004 – 2016) of the PCAOB. In contrast, many prior studies examining the relation between non-audit services and reporting quality focus on the period before SOX and the creation of the PCAOB. Our results suggest advisory services linked to the financial statements do impair reporting quality despite the increasing regulatory oversight of auditors.[7]

We build upon prior literature, particularly Kanagaretnam, Krishnan, and Lobo (2010) which examines auditor independence in the banking industry by associating audit fees to earnings management via the loan-loss provision in the period before the recent financial crisis. Kanagaretnam et al. (2010) finds earnings management is concentrated in smaller banks with higher audit fees and notes the same decline in reporting quality does not occur for larger banks. The study attributes this difference to the internal control requirements related to the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 and partitions on the FDICIA thresholds, limiting their findings to small community banks. In contrast, we find variation in financial reporting quality among large regional and national banks after implementing Dodd-Frank, based upon the bank engaging their external auditor in a regulatory

---

[7] While Section 201 of SOX limits the external auditor from providing select non-audit services, the regulatory advisory services we study are not directly addressed. However, the general standard of auditor independence requires that firms maintain objectivity and impartiality.

advisory capacity. We attribute this difference in results to recent changes in the regulatory environment for larger banks and the increased demand and use of advisory services in the banking industry to comply with such regulations.

The results of our study should be informative to policy makers. Aside from the PCAOB's heightened concern about increases in consulting and advisory service revenue, banks are undergoing the most significant financial reporting change in decades with the FASB's new standard related to measuring credit impairment based on current expected credit loss (CECL). If banks elect to use their external auditor for regulatory compliance with Dodd-Frank, the external auditor may, in the future, be in the position of auditing their own work because many of the Dodd-Frank regulatory requirements are inputs to the CECL models. Further, providing such services may further reduce financial reporting quality in the post-CECL period.

2. *Institutional Background, Related Research, and Hypothesis Development*

2.1 INSTITUTIONAL BACKGROUND

Enacted in July 2010, the Dodd-Frank Act includes several provisions to enhance the stability of the banking system. Three provisions have driven the increase in regulatory advisory services for banks. First, banks must perform and report the results of Dodd-Frank Act Stress Tests (DFASTs). The objective of stress testing is to determine if banks have the necessary capital to absorb losses and continue operations under adverse conditions. Required annually for banks with total assets greater than $10 billion, stress tests involve assessing the sensitivity of bank health to different economic and financial market scenarios defined by the Federal

Reserve.[8] The additional costs from stress testing result from implementing new software and data collection systems and expenses related to model development and stress test reporting.

Second, Dodd-Frank requires banks to conduct a Comprehensive Capital Analysis and Review (CCAR) to ensure banks with assets greater than $50 billion are adequately capitalized. CCAR evaluates the banks' capital planning process and current capital levels. The CCAR assessment includes both a quantitative assessment, including projecting capital ratios under hypothetical scenarios of severe economic and financial stress, quarter by quarter, for up to nine quarters, and a qualitative assessment, including assessment of capital planning, risk management, internal controls, and governance practices (Federal Reserve 2017a).

The third provision that has increased advisory costs for banks involves Section 165(d) of Dodd-Frank, which requires bank holding companies with greater than $50 billion in assets to submit resolution plans to the Federal Reserve annually. The resolution plan, called a "living will," outlines the bank's strategy for rapid and orderly resolution if material financial distress or failure occurs.

The involvement of the external auditor in regulatory compliance activities enhances their knowledge of the client. Specifically, the DFAST and CCAR models identify areas where risk of loss and exposure to economic conditions is likely to be significant. In addition, the annual resolution plan results in a greater understanding of bankruptcy risk.

2.2 ADVISORY SERVICES RELATED RESEARCH

Regulators have historically argued that advisory services negatively affect financial reporting because advisory services create an economic bond between the auditor and the client (DeAngelo 1981). This economic bond incentivizes the auditor, causing the auditor to be less

---

[8] The Federal Reserve's economic scenarios for stress tests include numerous economic indicators, such as changes in the unemployment rate, exchange rate, rate of GDP growth, and treasury yield curves (FDIC 2018).

professionally skeptical and more willing to accept management's financial reporting. Despite the theoretical argument, the empirical evidence is mixed. While some studies suggest advisory services negatively affect financial reporting quality (e.g., Frankel et al. 2002; Causholli et al. 2014; Markelevich and Rosner 2013), the majority of studies fail to find an association between advisory services and traditional measures of financial reporting quality (e.g., Ashbaugh et al. 2003; DeFond et al. 2002; Kinney et al. 2004).

The majority of prior research on advisory services and questions of financial reporting quality focuses on the non-financial institution setting. An exception to this is Kanagaretnam et al. (2010) which examines the relation between auditor independence in the banking industry by associating audit fees to earnings management via the loan-loss provision from 2000 through 2006. The study provides evidence that earnings management is concentrated in smaller banks paying higher fees to their auditor. In contrast to Kanagaretnam et al. (2010), we are primarily interested in how changes in the regulatory environment for banks (e.g., Dodd-Frank) have altered the relation between auditor-provided advisory services and financial reporting quality. Exploiting the regulatory change, we can identify the extent to which banks engage their external auditor to meet the Dodd-Frank requirements during a period when the sample of banks faces similar resource needs.

Before the SEC independence rules issued in 2000, advisory services were not prohibited for external audit clients. Because the SEC, and then SOX, restricted such services for all publicly traded U.S. firms simultaneously, it has been empirically challenging to construct an unaffected comparison group (Leuz and Wysocki 2016). Markelevich and Rosner (2013) attempts to address this problem by examining firms sanctioned by the SEC for fraudulent reporting. Comparing fraud and non-fraud firms, the study provides evidence that fraud firms pay higher

advisory service fees. Causholli et al. (2014) finds non-financial firms willing to purchase future advisory services from the external auditor are associated with earnings management. In addition, Rice and Weber (2012) finds audit firms with incentives to receive advisory fees are less likely to disclose an existing material weakness for firms misstating their financial statements.

We build upon these prior studies and examine a recent regulatory change to the demand for advisory services in the banking industry. Although the regulation affects the entire sample of banks simultaneously, banks do not have to engage their external auditor as their regulatory advisor. In fact, Dodd-Frank is silent on how banks are to meet the outlined regulatory requirements. Some banks may perform the requirements internally. Some banks may engage third-party firms, including their external auditor, as their regulatory advisor.[9] This choice allows our study to overcome many limitations of prior studies in this literature by identifying an appropriate comparison group. Specifically, we can observe variation in banks use of their external auditor for regulatory advisory services, allowing us to more directly assess whether auditor-provided advisory services negatively affect financial reporting quality. In addition, unlike prior research, the advisory services we study are related to financial reporting outcomes in banks through capital adequacy assessments, evaluations of risk, and loan loss modeling.

2.3 HYPOTHESIS DEVELOPMENT

Prior theoretical work demonstrates that economic bonding between the audit firm and client can lead to lower financial reporting quality because the auditor earns economic rents (DeAngelo 1981; Simunic 1984). However, the empirical evidence is mixed.

---

[9] As with any advisory service provided by the external auditor, the audit committee is required to approve regulatory advisory services. Based on conversations with Big 4 audit partners working in the banking industry, the decision to bid on this type of regulatory advisory service (e.g., model development, stress testing, resolution plans) is largely driven by the willingness of both the engagement partner and the audit committee.

As DeFond and Zhang (2014) state, one concern with studies related to auditor-provided advisory services is the inability to specify the mechanism by which advisory services influence financial reporting quality. Specific to our setting, regulatory advisory services focus on evaluating current and future capital adequacy and the risk of loss. By helping to build the regulatory models, the external auditor not only increases their knowledge of the bank's operations but also improves their awareness of the bank's exposure to regulatory capital limits. We contend this understanding, coupled with the strengthened economic bond, impairs the judgment of the auditor, manifesting itself in lower financial reporting quality. Thus, we test the following hypothesis (in alternative form):

HYPOTHESIS: *Higher (lower) regulatory advisory fees paid to external auditors are associated with lower (higher) financial reporting quality.*

3. Sample Selection and Research Design

3.1 SAMPLE SELECTION

Dodd-Frank was signed into law in 2010. Many provisions within the Dodd-Frank Act outline specific asset thresholds for compliance to target the largest banks and exempt the smaller banks for which compliance is presumably too costly. The main provisions driving the increase in demand for regulatory advisory services focus on banks with $10 billion or more in assets. Because banks close to this asset threshold likely anticipate crossing the threshold, we set the lower bound of the sample at $9 billion in assets. We set the upper bound of the sample as

banks with assets less than $100 billion because banks above $100 billion are governed by a more rigorous set of provisions, the timing of which is not consistent with the broader sample.[10]

The sample begins with public bank holding companies filing annual and quarterly Y9-C regulatory reports during the sample period. The sample begins in 2004 to eliminate concerns about the potentially confounding effects of SOX.[11] We limit the sample to banks with assets greater than $9 billion and less than $100 billion. We classify observations from 2004 to 2008 as the pre-period and observations from 2012 to 2016 as the post-period. We omit observations from 2009 to 2011 because this is the discussion and implementation period of Dodd-Frank. Because we want symmetric pre- and post-regulation periods, we end the sample in 2016. We identify 680 bank-years and 3,014 bank-quarters with available data for 81 distinct banks.

We then determine the extent to which the bank employed their external auditor as their regulatory advisor. As shown in Appendix A, banks using their external auditor for regulatory advisory services not only list the "other fees" paid to the external auditor but also describe the work performed. For example, according to their 2015 proxy statement, Huntington Bancshares Incorporated employed their external audit firm, Pricewaterhouse Coopers, to perform over $1.2 million in regulatory advisory services for creating the annual resolution plan, assessing various regulatory models, and developing information technology and operational benchmarking. We use other fees as a percentage of total fees (*REG ADVISORY$_t$*) to reflect the importance of the regulatory advisory services to the external auditor.

3.2 RESEARCH DESIGN

---

[10] Banks with greater than $100 billion in assets are characterized as systemically important institutions (SIFIs) and include Bank of America, Bank of New York Mellon, Barclays PLC, Citigroup Inc., Credit Suisse Group AG, Deutsche Bank AG, The Goldman Sachs Group, JP Morgan Chase and Company, Morgan Stanley, Prudential Financial Inc., State Street Corporation, UBS AG, and Wells Fargo and Company.
[11] Although banks were required to test internal controls beginning in 1993 under the internal control provision of FDICIA, auditors were not required to review or opine on management's assertions related to internal controls until the implementation of SOX.

As discussed in Section 3.1, we use the employment of the external auditor as the regulatory advisor as our identification strategy, which allows for a difference-in-differences research design. The difference-in-differences design mitigates concerns that the results are driven by changes in economic conditions. This design also allows us to compare financial reporting quality variables from a pre-period to a post-period for the banks hiring and not hiring the external auditor for regulatory advisory services.

Because we focus on a single industry, we study the specific account most likely to provide an opportunity for accounting discretion, the loan-loss provision. The loan-loss provision is typically the bank's largest operating accrual and has been the subject of significant accounting research related to capital and earnings management. To bolster the primary findings, we also examine broader measures of financial reporting quality. Specifically, we examine earnings persistence and benchmark-beating through small positive earnings changes. We acknowledge that capital and earnings management incentives are interrelated because earnings are included in regulatory capital calculations. In Section 5.2 we perform cross-sectional analyses to provide supporting evidence related to the incentives driving the reduction in financial reporting quality.

3.2.1 Regulatory Advisory Services and the Validity of the Loan-Loss Provision

The largest and most significant accrual in banking is the loan-loss provision. Prior research finds that banks manage the provision for loan losses and loan charge-offs to smooth and manipulate earnings and enhance regulatory capital (Beatty et al. 1995; Collins et al. 1995; Liu and Ryan 2006; Ahmed et al. 1999; Kim and Kross 1998). Consistent with prior literature, we expect an improvement in the validity of the provision to be a signal of higher financial reporting quality. The validity of the provision is consistent with the auditor's role and objective to opine on the bank's financial reporting relative to GAAP.

To test this hypothesis, we examine the validity of the provision by determining how well the loan-loss provision maps into subsequent charge-offs. According to Staff Accounting Bulletin (SAB) 102, which serves as the SEC guidance for estimating loan losses, a bank's loan loss allowance method is considered valid when it "include(s) procedures that adjust loan loss estimation methods to reduce differences between estimated losses and actual subsequent charge-offs." Following Altamuro and Beatty (2010), we estimate the following model with standard errors clustered by bank:

$$CHGO_{t+1} = \alpha + \beta_1 LLP_t + \beta_2 POST + \beta_3 REG\ ADVISORY_t + \beta_4 LLP_t * REG\ ADVISORY_t +$$
$$\beta_5 POST * REG\ ADVISORY_t + \beta_6 LLP_t * POST + \beta_7 LLP_t * POST * REG\ ADVISORY_t +$$
$$\beta_8 \Delta NPL + \beta_9 SIZE_t + \beta_{10} LLP_t * SIZE_t + \varepsilon. \tag{1}$$

The dependent variable is loan charge-offs in year $t+1$, scaled by beginning total assets ($CHGO_{t+1}$). We measure the loan-loss provision in year t, scaled by beginning total assets (LLP_t). *POST* is an indicator variable equal to one for observations in 2012 through 2016, and equal to zero for observations in 2004 through 2008. The variable representing the extent of employment of the external auditor in a regulatory advisory capacity is *REG ADVISORY_t*, measured as other fees paid to the external auditor as a percentage of total fees. The primary variable of interest is the three-way interaction, $LLP_t * POST * REG\ ADVISORY_t$. We expect a negative coefficient on this variable, indicating lower financial reporting quality (e.g., reduced loan-loss provision validity) in the post-period for banks extensively employing their external auditor as their regulatory advisor.

We control for the change in non-performing loans (ΔNPL), calculated as the change in non-performing loans, scaled by non-performing loans in year t-1. We also control for bank size ($SIZE_t$), measured as the natural log of total assets. We control for the interactive effect of the

loan-loan provision on bank size ($LLP_t * SIZE_t$) because it is plausible that larger, more

sophisticated banks have enhanced provisioning methodologies.

3.2.2 Regulatory Advisory Services and Earnings Quality

High quality earnings accurately reflect the underlying economics of the firm and should

represent financial reporting quality. To measure earnings quality, we rely upon a measure from

prior literature, that of earnings persistence. Dechow and Dichev (2002) and Richardson, Sloan,

Soliman, and Tuna (2005) find firms with lower accounting quality (e.g., low accrual quality) have

less earnings persistence. Based on this idea, we expect earnings persistence to decrease for banks

extensively employing the external auditor for regulatory advisory services in the post-period.

We follow Altamuro and Beatty (2010) and estimate the following model for earnings

persistence using quarterly data:

$$
\begin{aligned}
ROA_{q+1} = {} & \alpha + \beta_1 ROA_q + \beta_2 POST + \beta_3 REG\ ADVISORY_t + \beta_4 ROA_q * REG\ ADVISORY_t \\
& + \beta_5 POST * REG\ ADVISORY_t + \beta_6 ROA_q * POST + \beta_7\ ROA_q * POST * REG\ ADVISORY_t \\
& + \beta_8 SIZE_q + \beta_9 ROA_q * SIZE_q + \varepsilon.
\end{aligned} \tag{2}
$$

In Equation (2), the dependent variable is return on assets in quarter $q+1$, measured as net income

scaled by beginning of the quarter total assets (ROA_{q+1}). Earnings persistence is then measured as

the coefficient on return on assets in quarter q (ROA_q).

As in Equation (1), *POST* is an indicator variable equal to one for observations in 2012 through

2016, and equal to zero for observations in 2004 through 2008. *REG ADVISORY_t* represents the

extent to which the bank employs their external auditor to meet the Dodd-Frank regulatory

requirements and is calculated as the percentage of total fees. The primary variable of interest in

Equation (2) is the three-way interaction, *ROA_q * POST * REG ADVISORY_t*. We expect a negative

coefficient on this variable, indicating lower financial reporting quality (less earnings persistence)

in the post-period for banks extensively engaging their external auditor for regulatory advisory services.

We control for bank size ($SIZE_q$), measured as the natural log of total assets. We also control for the interactive effect of return on assets on bank size ($ROA_q * SIZE_q$) as larger banks are generally more profitable due to economies of scale. We cluster standard errors by bank.

3.2.3 Regulatory Advisory Services and Small Positive Earnings Changes

To provide further evidence on earnings management, we examine whether banks extensively using auditor-provided regulatory advisory services have a greater propensity to report small positive earnings changes in the post-period. Following Beatty, Ke, and Petroni (2002), we estimate the following probit regression model:

$$SMALL\ POSITIVE\ \Delta_t = \alpha + \beta_1 POST + \beta_2\ REG\ ADVISORY_t + \beta_3 POST * REG\ ADVISORY_t \\ + \beta_4\Delta ASSETS + \beta_5 SIZE_t + \beta_6\Delta CASH\ FLOWS + \beta_7\Delta^2 NPL + \beta_8\Delta REAL\ ESTATE\ LOANS + \\ \beta_9\Delta COMMERCIAL\ LOANS + \beta_{10}\Delta CONSUMER\ LOANS + \varepsilon. \tag{3}$$

The dependent variable is small positive earnings changes in year t, which is an indicator variable equal to one if the change in return on assets from year t-1 to year t is between 0 and 0.0008, and zero otherwise (*SMALL POSITIVE* Δ_t). *POST* is an indicator variable equal to one for observations in 2012 through 2016, and equal to zero for observations in 2004 through 2008. *REG ADVISORY_t* is the percentage of total fees designated as other fees. The primary variable of interest is the interaction of *POST * REG ADVISORY_t*. We expect a positive coefficient on this variable, which indicates lower financial reporting quality (e.g., a higher likelihood of benchmark beating) in the post-period for banks extensively employing their external auditor for regulatory advisory services.

We control for other variables shown by prior literature to influence earnings management in the banking industry. We include changes in assets ($\Delta ASSETS$) to control for firm growth and the

natural log of total assets ($SIZE_t$) to control for bank size. We also include changes in cash flows

($\Delta CASH\ FLOWS$) to control for profitability. Because banks with more non-performing loans

face increased incentives to manage earnings, we include the change in non-performing loans,

scaled by the change in total loans ($\Delta^2 NPL$) following Beatty et al. (2002). To capture

differences in loan portfolio risk across banks, we include changes in real estate loans ($\Delta REAL$

$ESTATE\ LOANS$), changes in commercial loans ($\Delta COMMERCIAL\ LOANS$), and changes in

consumer loans ($\Delta CONSUMER\ LOANS$). We again cluster standard errors by bank.

4. Results

4.1 DESCRIPTIVE STATISTICS

Table 1, Panel A, reports mean other fees (unscaled) paid to auditors and mean total fees paid

to auditors in each sample year. Mean other fees increase from $184,000 in 2008 to $300,000 in

2012. In the following year, mean other fees increase to $855,000. This is consistent with the

period when the Dodd-Frank regulatory compliance is implemented. From 2012 onward, mean

other fees show a marked increase from pre-period levels. Similarly, we document an increase in

mean other fees as a percent of mean total fees, reaching a high of 37% in 2013. Table 1, Panel

B, reports mean other fees (unscaled) and mean total fees paid to the largest audit firms in the

sample. There is significant variation, ranging from 1% to 19%, across the audit firms for other

fees relative to total fees.

[Insert Table 1 here]

Table 2 provides descriptive statistics for the full sample. The primary variable of interest is

$REG\ ADVISORY_t$. The average value of $REG\ ADVISORY_t$ for firms engaging the external auditor

is 8.00 (untabulated). The firms show significant variation in other fees, which helps to classify

16

firms into those extensively hiring and not hiring their external auditor for regulatory advisory services. The measures of financial reporting quality are largely in line with our expectations given prior literature and the sample period with a mean of 0.004 for loan charge-offs in year $t+1$, 0.002 for return on assets in quarter $q+1$, and 0.360 for small positive earnings changes in year t.

On average, the sample firms are large and profitable (e.g., positive ROA, positive change in cash flows). The loan-loss provision as a percentage of total assets shows variation across the sample with a range of 0.1% (lower quartile) to 0.3% (upper quartile). The change in non-performing loans also shows variation across the sample with a median of -0.022 to a mean of 0.418. Finally, the sample of banks demonstrates moderate growth as shown by a mean change in assets of 0.123.

[Insert Table 2 here]

4.2 REGULATORY ADVISORY SERVICES AND THE VALIDITY OF THE LOAN-LOSS PROVISION

We first examine whether firms extensively employing their external auditor in a regulatory advisor capacity are associated with lower financial reporting quality, using the validity of the loan-loss provision as the proxy. In Table 3 we present the results of estimating Equation (1) when the dependent variable is loan charge-offs ($CHGO_{t+1}$). The primary coefficient of interest is the loan-loss provision in the post-period for banks extensively using their external auditor as their regulatory advisor ($LLP_t * POST * REG\ ADVISORY_t$). Column (1) shows the main specification; Column (2) includes the addition of year fixed effects. In both specifications we find a positive coefficient on the interaction of $LLP_t * REG\ ADVISORY_t$, consistent with external auditors constraining earnings management in the pre-period (t-statistics of 3.68 and 3.71). We also find a negative and statistically significant relationship between $LLP_t * POST * REG$

17

ADVISORY$_t$ and one-year ahead loan charge-offs (*t*-statistics of -3.62 and -3.58). This indicates a negative difference between accrual and operating activity for banks extensively using the auditor in an advisory capacity relative to banks not using their auditor during the post-period.

[Insert Table 3 here]

4.3 REGULATORY ADVISORY SERVICES AND EARNINGS QUALITY

Table 4 provides the results of the earnings quality analysis by estimating Equation (2) with return on assets in quarter *q*+1 as the dependent variable (*ROA$_{q+1}$*). The primary coefficient of interest is the three-way interaction, *ROA$_q$ * POST * REG ADVISORY$_t$*, which measures return on assets in the post-period for banks extensively using their external auditor as their regulatory advisor. Column (1) shows the main specification and Column (2) includes the addition of year fixed effects. We find a positive coefficient on the interaction of *ROA$_q$ * REG ADVISORY$_t$*, consistent with external auditors restricting earnings management in the pre-period (*t*-statistics of 1.87 and 2.09). In both specifications we find a negative and statistically significant relationship between *ROA$_q$ * POST * REG ADVISORY$_t$* and one-year ahead return on assets (*t*-statistics of Annual -1.57 and -1.79). These results indicate that banks extensively engaging the external auditor for regulatory advisory services, relative to banks not engaging the external auditor, have a greater decline in earnings persistence during the post-period.

[Insert Table 4 here]

4.4 REGULATORY ADVISORY SERVICES AND SMALL POSITIVE EARNINGS CHANGES

In Table 5 we present the results of estimating Equation (3) for the likelihood of engaging in earnings management through benchmark-beating. The primary coefficient of interest is the two-way interaction, *POST * REG ADVISORY$_t$*. Column (1) shows the main specification and Column (2) includes the addition of year fixed effects. Both specifications document a negatively

significant coefficient on *REG ADVISORY$_t$*. This suggests that, in the pre-period, external auditors engaged to a greater extent in advisory services were limiting earnings management (*t*-statistics of -1.97 and -1.92). We also find a positive and statistically significant relation between *POST * REG ADVISORY$_t$* and the propensity to report small positive earnings changes (*t*-statistics of 1.62 and 1.65). Overall, these findings are consistent with the notion that banks employing their external auditor to a greater extent in a regulatory advisory capacity, relative to banks not employing their auditor, have lower financial reporting quality in the post-period.

[Insert Table 5 here]

5. *Additional Analyses*

5.1 ENTROPY BALANCED MATCHED SAMPLE

It is possible that characteristics associated with the choice to hire the external auditor to perform regulatory advisory services are driving the results. To mitigate this concern, we re-perform the main analysis using an entropy balanced matched sample following McMullin and Schonberger (2017). Entropy balancing controls for observable characteristics that may influence the relations being examined. Unlike other commonly used matching procedures (e.g., propensity score matching), entropy balancing reweights observations in the control sample (firms not employing their external auditor for regulatory advisory services) such that the underlying distribution of the control sample becomes similar to the treatment sample (firms employing their external auditor for regulatory advisory services) (Hainmueller 2011). This reweighting of the control sample observations reduces the impact of observable characteristics on the treatment variable and reduces concerns that treatment outcomes are a function of the observable characteristics rather than the treatment variable (Hainmueller and Xu 2013).

To correct for selection on observable differences between treatment and control firms, we construct a model for the choice to engage the external auditor in an advisory capacity. We balance the sample on the following characteristics: (1) audit quality; (2) the status of the audit firm as an external audit specialist in the banking industry; (3) the status of the audit firm within the advisory services industry; and (4) the resource constraints of the bank.

To proxy for audit quality, we use three measures commonly used in the literature. We include an indicator variable for Big N auditors (*BIG N*) as prior literature suggests Big N auditors have more resources and provide a higher quality audit. We also include an indicator variable for second tier audit firms (*TIER 2*) as prior work suggests there is little evidence of actual audit quality differences between Big N and second tier firms (Boone, Khurana, and Raman 2010). We control for the number of years the auditor has served the firm (*TENURE*) as auditor tenure can influence perceptions of audit quality at the board level, which may influence the audit committee's willingness to approve regulatory advisory services (Ghosh and Moon 2005).

We include several measures specific to the audit firm's status. First, following Francis, Reichelt, and Wang (2005) and Reichelt and Wang (2010), we calculate the status of the audit firm as an external audit expert within banking at both the national (*NATIONAL AUDIT SPECIALIST*) and local office levels (*LOCAL AUDIT SPECIALIST*) based on the audit firm's annual market share of audit fees. We expect this variable to be positively correlated with the bank's willingness to choose the external auditor as their regulatory advisor given the depth of the industry knowledge of the external audit firm. To evaluate the audit firm's position within the advisory services industry, we include an indicator variable for whether the firm offered any advisory services to their audit clients in the current fiscal year (*ADVISORY*). We also measure the status of the audit firm as a national advisory services expert (*ADVISORY SPECIALIST*) in the banking industry

based on the audit firm's annual market share of advisory fees. We expect both of the advisory-specific measures to be positively correlated with the choice of the external auditor as their regulatory advisor.

Finally, we evaluate the bank's capacity to perform regulatory requirements internally. Banks with more internal resources are less likely to engage their external auditor, or any third-party provider, to comply with Dodd-Frank. We include the ratio of full-time employees to total non-interest expense as a measure of internal capacity (*EMPLOYEES*). We also include consulting and advisory fees the bank paid to external parties in the current year, scaled by other non-interest expense (*CONSULTING FEES*).[12]

Table 6 presents the results of estimating the analyses using the entropy balanced matched sample. Panel A (B) provides descriptive statistics for the sample before (after) the entropy balancing procedure for the annual tests.[13] We match treatment and control firms on all three moments of the control variables. Panel A suggests that, before the entropy balancing procedure, several control variables (e.g., propensity to have a national bank specialist auditor, tenure) differ between the treatment and control samples. Panel B demonstrates that, after the entropy balancing procedure, the treatment and control observations have identical mean, variance, and skewness, showing the entropy balancing matching procedure is effective.

Panel C reports the regression results with the entropy balanced matched sample. Columns (1) and (2) report the results with future charge-offs as the dependent variable. The coefficient on $LLP_t * POST * REG\ ADVISORY_t$ is negative and statistically significant (*t*-statistics of -4.24 and

---

[12] Consulting and advisory fees are disclosed beginning in 2008 if material (i.e., fees exceed $100,000 and 7 percent of other noninterest expense). Consulting and advisory fees include fees paid to the external auditor or any third party advisor. These expenses are calculated on a cash basis and, therefore, do not perfectly match the audit fees disclosed in the proxy statements.

[13] For the quarterly earnings persistence analysis, we re-perform the entropy balancing procedure using the same annual variables with the exception of *EMPLOYEES* and *CONSULTING FEES*, for which we use quarterly data.

-4.17). Columns (3) and (4) provide the results with return on assets in quarter $q+1$ as the dependent measure. The coefficient on $ROA_q * POST * REG\ ADVISORY_t$ is negative and statistically significant (t-statistics of -1.75 and -1.86). Columns (5) and (6) report the results with small positive earnings changes as the dependent variable. The coefficient on $POST * REG$ $ADVISORY_t$ is positive and statistically significant (t-statistics of 1.62 and 1.72). Taken together, these results support the conclusion that banks extensively hiring their external auditor to provide regulatory advisory services have a greater decline in financial reporting quality in the post-period.

[Insert Table 6 here]

5.2 CROSS-SECTIONAL ANALYSES

The primary results examine the average differences between extensively employing (not employing) the external auditor in a regulatory advisory capacity and financial reporting quality. We next perform validity tests to provide additional supporting evidence. Specifically, we present evidence on: (1) the motivation for the degradation in financial reporting quality by focusing on firms under significant regulatory pressure; and (2) the lack of effective oversight of the external auditor by showing that lower financial reporting quality is concentrated in firms with less effective audit committees.

First, we predict the incentives to manage regulatory capital and earnings through the loan-loss provision increase when firms experience regulatory pressure. To proxy for regulatory pressure, we partition the sample on whether the bank has or does not have a regulatory enforcement action. Regulation is a distinguishing feature of the banking industry and regulators intervene in a bank's operations by issuing a formal enforcement action. Following prior literature, we identify enforcement actions as formal actions bank regulators have taken,

including cease and desist orders, prompt corrective action directives, and formal written

agreements (Gallemore 2016). A bank that has (does not have) an enforcement action faces more

(less) regulatory pressure.

Columns (1) and (2) of Table 7, Panel A, report the result from this cross-sectional test.

Consistent with our prediction, we find the decline in financial reporting quality concentrated in

banks with an enforcement action in year t. Specifically, the estimated coefficient on LLP_t *

$POST$ * $REG\ ADVISORY_t$ is negative and statistically significant in both the *Has Enforcement*

Action (*t*-statistic of -2.67) and *Does Not Have Enforcement Action* subsamples (*t*-statistic of

-3.04). However, a test for coefficient differences across the *Has* and *Does Not Have*

Enforcement Action subsamples indicates the coefficient on LLP_t * $POST$ * $REG\ ADVISORY_t$ is

statistically larger for the subsample with an enforcement action. Economically speaking, the

estimated coefficient on LLP_t * $POST$ * $REG\ ADVISORY_t$ for the *Has Enforcement Action*

sample is over 3.0 times larger than that for the *Does Not Have Enforcement Action* sample.

These results support the prediction that banks under significant regulatory pressure have

stronger incentives to manage regulatory capital and earnings through the loan-loss provision.

Next, we examine the impact of less effective audit committees on the difference in financial

reporting quality. The audit committee must approve advisory services performed by the external

auditor and oversee the financial reporting process.[14] Larcker and Richardson (2004) finds that

non-audit services hinder earnings quality for firms with weak corporate governance. Within

banking, Cornett et al. (2009) documents that strong corporate governance constrains earnings

---

[14] Bank audit committee responsibilities include: (1) reviewing accounting estimates, financial reporting judgments, and financial statement disclosures; (2) monitoring and disciplining management accountable for addressing identified deficiencies (e.g., violations of law or regulation); (3) overseeing internal control system and the internal and external audit functions; and (4) meeting with bank examiners at least once each supervisory cycle (OCC 2016; Federal Reserve Board 2017b).

management. Therefore, we predict that the ability to manipulate the loan-loss provision when the external auditor serves in a regulatory advisory capacity is greater in banks with less effective audit committees. Consistent with prior literature, we use two measures to proxy for audit committee effectiveness: (1) the size of the audit committee; and (2) financial expertise (e.g., Bedard, Chtourou, and Courteau 2004; Krishan and Visvanathan 2008; Sun and Liu 2014).[15]

Theory suggests larger audit committees are more likely to be acknowledged as an authoritative body by the external audit function (Sun and Liu 2014; Abbott, Parker, and Peters 2004; Kalbers and Fogarty 1993). We partition the sample on whether the bank has the minimum number of required audit committee members as regulated by the SEC (i.e., three members) or whether the bank has a larger audit committee (SEC 1999). Consistent with our prediction, we find a greater decline in financial reporting quality for banks extensively using auditor-provided regulatory advisory services and having only the minimum required number of audit committee members. Specifically, the estimated coefficient on $LLP_t * POST * REG\ ADVISORY_t$ is negative and statistically significant in both the *Audit Committee (AC) Size Above Minimum* (*t*-statistic of -3.11) and *Audit Committee (AC) Size Meets Minimum* subsamples (*t*-statistic of -6.94). However, a test for coefficient differences across the subsamples indicates the coefficient on $LLP_t * POST * REG\ ADVISORY_t$ is statistically larger for the subsample with the minimum required number of audit committee members.

The second proxy for audit committee effectiveness is the number of accounting experts on the audit committee. We predict that having more accounting expertise on the audit committee improves the effectiveness of the audit committee. We partition the sample on whether the bank has the minimum number of accounting experts as defined by Section 407 of SOX (i.e., one

---

[15] Due to a lack of data availability in the BoardEx database, we lose 60 observations for the cross-sectional tests related to audit committee effectiveness.

expert) or whether the bank has more experts on the audit committee.[16] Consistent with our

prediction, we find the decline in financial reporting quality is concentrated in banks extensively

using the external auditor as a regulatory advisor and having only the minimum required

accounting experts on the audit committee. Specifically, the estimated coefficient on LLP_t *

$POST$ * $REG\ ADVISORY_t$ is negative but not statistically significant in the *Audit Committee*

(AC) Expertise Above Minimum subsample (*t*-statistic of -0.21). However, as predicted, the

estimated coefficient on LLP_t * $POST$ * $REG\ ADVISORY_t$ is negative and statistically significant

in the *Audit Committee (AC) Expertise Meets Minimum* subsample (*t*-statistic of -2.82). A test for

coefficient differences across subsamples finds the coefficient on LLP_t * $POST$ * REG

$ADVISORY_t$ is statistically larger for the subsample with the minimum required accounting

experts. Collectively, these results support the prediction that banks with less effective audit

committees manage regulatory capital and earnings through the loan-loss provision.

[Insert Table 7 here]

5.3 ALTERNATIVE IDENTIFICATION OF REGULATORY ADVISORY SERVICES

The primary measure of regulatory advisory services is the percentage of other fees relative

to total fees. Although the Dodd-Frank regulation is a powerful identification tool, we recognize

that the disclosure of other fees is an imperfect proxy. To validate the results, we hand-collect the

description of other fees paid to the external auditor from proxy statements for all banks

reporting non-zero other fees in Audit Analytics. This allows us to directly examine fees related

---

[16] Prior literature demonstrates that the SEC's broad definition of financial expertise outlined in SOX is not as closely associated with improved financial reporting quality as accounting expertise (Dhaliwal, Naiker, and Navissi 2010; Bedard et al. 2004; Krishan and Visvanathan 2008). Therefore, we use the construct of accounting expertise as defined by the literature. Empirically, we define accounting expertise as audit committee members with at least one of the following qualifications: CPA, Certified Accountant, Certified Fraud Examiner, Certified Internal Auditor, Certified Management Accountant, Certified Public Accountant, Certified in Financial Forensics, Chartered Accountant, or Chartered Global Management Accountant. In untabulated results, we limit accounting expertise to either the CPA or Certified Public Accounting designation and results are unchanged.

to regulatory advisory services. We read each proxy statement and identify banks with other fees directly related to regulatory compliance using the following phrases: "regulatory compliance," "resolution plan," "regulatory model," "capital adequacy," and "stress testing." See Appendix A for examples. For banks disclosing regulatory advisory fees paid to the external auditor at any point in the sample period, we set $PROXY_t$ equal to one. If the bank does not state the reason for the other fees, or we cannot directly tie the other fees to regulatory advisory services, we set $PROXY_t$ equal to zero.[17] For banks disclosing auditor-provided regulatory advisory fees, $POST$ is equal to one in the first period of disclosure, and zero otherwise.

To obtain an appropriate control sample, we create a one-to-one match between banks disclosing and not disclosing auditor-provided regulatory advisory fees. We create matched pairs based on total assets. For the banks not using their external auditor for regulatory advisory, $POST$ is equal to one when its matched pair discloses regulatory advisory fees, and zero otherwise. This process results in 30 matched pairs and 615 observations.

We then re-perform the regression analyses using $PROXY_t$ as the measure of regulatory advisory services for the hand-collected sample. Table 8 reports the results. Columns (1) and (2) report the results with future charge-offs as the dependent variable. The coefficient on $LLP_t *$ $POST * PROXY_t$ is negative and statistically significant (t-statistics of -2.15 and -2.29). These results validate the use of other fees as a proxy for regulatory advisory services. In addition, these results support the conclusion that banks hiring their external auditor to provide regulatory advisory services are associated with a decline in financial reporting quality.

[Insert Table 8 here]

5.4 SAMPLE UPPER AND LOWER BOUNDS

---

[17] Results are robust to dropping, instead of coding as zeros, banks with a lack of disclosure about other fees.

We conduct three sensitivity analyses to address concerns that sample design choices related to asset size thresholds are driving the results. First, we re-examine the main test of Equation (1) using all banks with assets greater than $9 billion but with no upper bound. Table 9 reports the results. Column (1) shows the main specification and Column (2) includes the addition of year fixed effects. In both specifications we find a negative and statistically significant relationship between $LLP_t * POST * REG\ ADVISORY_t$ and one-year ahead loan charge-offs (t-statistics of -2.95 and -2.73).

Second, we re-perform the main analysis using all banks with assets greater than $10 billion but with no upper bound. Column (3) shows the main specification and Column (4) includes the addition of year fixed effects. In both specifications we find a negative and statistically significant relationship between $LLP_t * POST * REG\ ADVISORY_t$ and one-year ahead loan charge-offs (t-statistics of -4.78 and -4.35).

Third, we re-examine the main test using all banks with assets greater than $10 billion and less than $100 billion. Column (5) shows the main specification and Column (6) includes the addition of year fixed effects. In both specifications we find a negative and significant relationship between $LLP_t * POST * REG\ ADVISORY_t$ and one-year ahead loan charge-offs (t-statistics of -3.65 and -3.60). Overall, sample design choices do not alter our inferences.

[Insert Table 9 here]

6. Conclusion

The Dodd-Frank Act introduced regulatory requirements for banks with the overall objective of improving the safety and soundness of the financial system. While Dodd-Frank is designed to decrease bank risk taking and improve banks' internal monitoring systems, Dodd-Frank also

increases the demand by banks for regulatory advisory services to assist banks in addressing the many regulatory requirements. The decline in financial reporting quality associated with the employment of the external auditor in a regulatory consulting capacity is an unintended consequence of the Dodd-Frank Act.

To test the impact of such demand and subsequent purchase of auditor-provided regulatory advisory services on financial reporting quality, we examine differences between banks extensively engaging their external auditor for regulatory advisory services and banks not engaging their external auditor for regulatory advisory services. The primary measure of financial reporting quality is the validity of the loan-loss provision. Using a difference-in-differences design, we find banks extensively employing their external auditor as their regulatory advisor have a decline in financial reporting quality. This result continues to hold after controlling for self-selection using an entropy balanced matched sample.

To reinforce the primary finding, we use cross-sectional tests and find the relation between regulatory advisory services and lower financial reporting quality is more pronounced for banks facing greater regulatory pressure and for banks with less effective audit committees. In additional analyses, we conduct sensitivity tests for our proxy (i.e., other fees) for regulatory advisory fees and for the research design choices made related to the upper and lower asset thresholds of the sample. We continue to find results consistent with the primary analysis.

To bolster the main finding, we use additional measures of financial reporting quality from the literature, including earnings persistence and earnings management through small positive earnings changes. We continue to find that banks hiring their external auditor for regulatory advisory services are associated with a decline in financial reporting quality.

Taken together, the results are consistent with PCAOB concerns that financial reporting quality declines when external auditors are responsible for the external audit as well as other advisory services. This concern was the impetus behind the SEC independence rules in 2000 and the SOX requirement to limit certain advisory services.

Our study has inherent limitations. First, we can only examine regulatory changes in the banking industry. Analyzing this question in a single industry is beneficial as it holds constant industry variation that may occur across our time series as well as regulatory requirements. In addition, it holds relatively constant the type of advisory services provided and the event requiring such services. While we believe the results should generalize to other industries, we cannot provide evidence on such a conjecture. Second, the banks in the sample are all sizeable, public banks with assets ranging from $9 to $100 billion. Due to timing differences with the largest banks and exemptions for the smallest banks, we cannot provide evidence on whether the negative association between regulatory advisory services and financial reporting quality holds across all financial institutions.

Despite these limitations, this study should interest regulators as they continue to monitor the growth of advisory services. As the new CECL model is implemented, the FASB and bank regulators may also be interested in understanding the effects of employing the external auditor in a consulting capacity, particularly as they evaluate proposed and future regulatory changes.

REFERENCES

ABBOTT, L., S. PARKER, AND G. PETERS. "Audit Committee Characteristics and Restatements." *Auditing: A Journal of Practice and Theory* 23 (2004): 69-87.

AHMED, A., C. TAKEDA, AND S. THOMAS. "Bank Loan Loss Provisions: A Reexamination of Capital Management, Earnings Management and Signaling Effects." *Journal of Accounting and Economics* 28 (1999): 1-25.

ALTAMURO, J., AND A. BEATTY. "How Does Internal Control Regulation Affect Financial Reporting?" *Journal of Accounting and Economics* 49 (2010): 58-74.

ASHBAUGH, H., R. LAFOND, AND B.W. MAYHEW. "Do Nonaudit Services Compromise Auditor Independence? Further Evidence." *The Accounting Review* 78 (2003): 611-639.

BADOLATO, P.G., D.C. DONELSON, AND M. EGE. "Audit Committee Financial Expertise and Earnings Management: The Role of Status." *Journal of Accounting and Economics* 58 (2014): 208-230.

BEATTY, A., S.L. CHAMBERLAIN, AND J. MAGLIOLO. "Managing Financial Reports of Commercial Banks: The Influence of Taxes, Regulatory Capital, and Earnings." *Journal of Accounting Research* (1995): 231-261.

BEATTY, A., B. KE, AND K. PETRONI. "Earnings Management to Avoid Earnings Declines Across Publicly and Privately Held Banks." *The Accounting Review* 77 (2002): 547-570.

BEATTY, A., AND S. LIAO. "Financial Accounting in the Banking Industry: A Review of the Empirical Literature." *Journal of Accounting and Economics* 58 (2014): 339-383.

BEDARD, J., S.M. CHTOUROU, AND L. COURTEAU. "The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management." *Auditing: A Journal of Practice & Theory* 23 (2004): 13-35.

BOONE, J. P., I.K. KHURANA, AND K.K. RAMAN. "Do the Big 4 and the Second-Tier Firms Provide Audits of Similar Quality?" *Journal of Accounting and Public Policy* 29 (2010): 330-352.

CAUSHOLLI, M., D.J. CHAMBERS, AND J.L. PAYNE. "Future Nonaudit Service Fees and Audit Quality." *Contemporary Accounting Research* 31 (2014): 681-712.

CHUNG, H., AND S. KALLAPUR. "Client Importance, Nonaudit Services, and Abnormal Accruals." *The Accounting Review* 78 (2003): 931-955.

COLLINS, J., D. SHACKELFORD, AND J. WAHLEN. "Bank Differences in the Coordination of Regulatory Capital, Earnings, and Taxes." *Journal of Accounting Research* 33 (1995): 263-291.

CORNETT, M.M., J.J. MCNUTT, AND H. TEHRANIAN. "Corporate Governance and Earnings Management at Large U.S. Bank Holding Companies." *Journal of Corporate Finance* 15 (2009): 412-430.

DEANGELO, L. "Auditor Independence, 'Lowballing', and Disclosure Regulation." *Journal of Accounting and Economics* 3 (1981): 113-27.

DECHOW, P.M., AND I.D. DICHEV. "The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors." *The Accounting Review* 77 (2002): 35-59.

DEFOND, M.L., K. RAGHUNANDAN, AND K.R. SUBRAMANYAM. "Do Non-Audit Service Fees Impair Auditor Independence? Evidence from Going Concern Audit Opinions." *Journal of Accounting Research* 40 (2002): 1247-1274.

DEFOND, M., AND J. ZHANG. "A Review of Archival Auditing Research." *Journal of Accounting and Economics* 58 (2014): 275-326.

DHALIWAL, D., V. NAIKER, AND F. NAVISSI. "The Association Between Accruals Quality and the Characteristics of Accounting Experts and Mix of Expertise on Audit Committees." *Contemporary Accounting Research* 27 (2010): 787-827.

FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC). *FDIC Releases Economic Scenarios for 2018 Stress Testing* [Press Release], 2018. Retrieved from: https://www.fdic.gov/news/news/press/2018/pr18009.html.

FEDERAL RESERVE BOARD. *Comprehensive Capital Analysis and Review 2017: Summary Instructions for LISCC and Large and Complex Firms*, 2017a. Retrieved from: https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20170203a4.pdf.

FEDERAL RESERVE BOARD. *Commercial Bank Examination Manual.* 2017b. Retrieved from: https://www.federalreserve.gov/publications/supervision_cbem.htm.

FRANCIS, J.R., K. REICHELT, AND D. WANG. "The Pricing of National and City-Specific Reputations for Industry Expertise in the U.S. Audit Market." *The Accounting Review* 80 (2005): 113-136.

FRANKEL, R.M., M.F. JOHNSON, AND K.K. NELSON. "The Relation Between Auditors' Fees for Nonaudit Services and Earnings Management." *The Accounting Review* 77 (2002): 71-105.

GALLEMORE, J. "Bank Financial Reporting Opacity and Regulatory Intervention." Working Paper, University of Chicago, 2016.

GHOSH, A., AND D. MOON. "Auditor Tenure and Perceptions of Audit Quality." *The Accounting Review* 80 (2005): 585-612.

HAINMUELLER, J. "Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies." *Political Analysis* 20 (2011): 25-46.

HAINMUELLER, J., AND Y. XU. "ebalance: A Stata Package for Entropy Balancing." *Journal of Statistical Software* 54 (2013): 1-18.

HARRIS, S. "Auditor Independence and the Role of the PCAOB in Investor Protection." *International Corporate Governance Network (ICGN) Annual Conference.* PCAOB 2016.

KALBERS, L.P., AND T.J. FOGARTY. "Audit Committee Effectiveness: An Empirical Investigation of the Contribution of Power." *Auditing: A Journal of Practice and Theory* 12 (1993).

KANAGARETNAM, K., G. KRISHAN, AND G. LOBO. "An Empirical Analysis of Auditor Independence in the Banking Industry." *The Accounting Review* 85 (2010): 2011-2046.

KAROLYI, G. A. "Discussion of a Lobbying Approach to Evaluating the Sarbanes-Oxley Act of 2002." *Journal of Accounting Research* 47 (2009): 585-595.

KIM, M., AND W. KROSS. "The Impact of the 1989 Change in Bank Capital Standards on Loan Loss Provisions and Loan Write-Offs." *Journal of Accounting and Economics* 25 (1998): 69-99.

KINNEY, W.R., Z.V. PALMROSE, AND S. SCHOLZ. "Auditor Independence, Non-Audit Services, and Restatements: Was the U.S. Government Right?" *Journal of Accounting Research* 42 (2004): 561-588.

KRISHAN, G., AND G. VISVANATHAN. "Does the SOX Definition of Accounting Expert Matter? The Association between Audit Committee Directors' Accounting Expertise and Accounting Conservatism." *Contemporary Accounting Research* 25 (2008): 827-857.

LARCKER, D.F., AND S.A. RICHARDSON. "Fees Paid to Audit Firms, Accrual Choices, and Corporate Governance." *Journal of Accounting Research* 42 (2004): 625-658.

LEUZ, C. "Was the Sarbanes–Oxley Act of 2002 Really This Costly? A Discussion of Evidence from Event Returns and Going-Private Decisions." *Journal of Accounting and Economics* 44 (2007): 146-165.

LEUZ, C. AND P. WYSOCKI. "The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research." *Journal of Accounting Research* 54 (2016): 525-622.

LIU, C., AND S. RYAN. "Income Smoothing over the Business Cycle: Changes in Banks' Coordinated Management of Provisions for Loan Losses and Loan Charge-Offs from the Pre-1990 Bust to the 1990s Boom." *The Accounting Review* 81 (2006): 421-441.

MARKELEVICH, A. AND R.L. ROSNER. "Auditor Fees and Fraud Firms." *Contemporary Accounting Research* 30 (2013): 1590-1625.

MCMULLIN, J.L., AND B. SCHONBERGER. "Entropy-Balanced Discretionary Accruals." Working Paper, Indiana University and the University of Rochester, 2017.

OFFICE OF THE COMPTROLLER OF THE CURRENCY (OCC). *The Director's Book: Role of Directors for National Banks and Federal Savings Associations*, 2016. Retrieved from: https://www.occ.gov/publications/publications-by-type/other-publications-reports/the-directors-book.pdf.

REICHELT, K., AND D. WANG. "National and Office-Specific Measures of Auditor Industry Expertise and Effects on Audit Quality." *Journal of Accounting Research* 48 (2010): 647-686.

RICE, S.C., AND D.P. WEBER. "How Effective Is Internal Control Reporting Under SOX 404? Determinants of the (Non-) Disclosure of Existing Material Weaknesses." *Journal of Accounting Research* 50 (2012): 811-843.

RICHARDSON, S.A., R.G. SLOAN, M.T. SOLIMAN, AND I. TUNA. "Accrual Reliability, Earnings Persistence and Stock Prices." *Journal of Accounting and Economics* 39 (2005): 437-485.

SCHNEIDER, A., B.K. CHURCH, AND K.M. ELY. "Non-Audit Services and Auditor Independence: A Review of the Literature." *Journal of Accounting Literature* 25 (2006): 169-211.

SECURITIES AND EXCHANGE COMMISSION (SEC). *Final rule. Audit committee disclosure.* Release No. 34-42266; File No. S7-22-99. 1999. Washington, DC: SEC.

SIMUNIC, D.A. "Auditing, Consulting, and Auditor Independence." *Journal of Accounting Research* 22 (1984): 679-702.

SRINIVASAN, S. "Consequences of Financial Reporting Failure for Outside Directors: Evidence from Accounting Restatements and Audit Committee Members." *Journal of Accounting Research* 43 (2005): 291-334.

SUN, J., AND G. LIU "Audit Committee Oversight of Bank Risk-Taking." *Journal of Banking and Finance* 40 (2014): 376-387.

Proxy Statement Examples for Auditor-Provided Regulatory Advisory Services

EXAMPLE 1: Huntington Bancshares Incorporated is classified as a firm using their external auditor, Pricewaterhouse Coopers LLP, for regulatory advisory services as shown in the 2015 proxy statement below:

Audit Fees, Audit-Related Fees, Tax Fees and All Other Fees

The table below reflects the aggregate fees and out of pocket expenses billed by PricewaterhouseCoopers LLP for services rendered for us for 2015.

Fees Billed by PricewaterhouseCoopers LLP for Year Ended December 31, 2015	
Audit Fees(1)	$3,051,499
Audit-Related Fees (2)	710,424
Tax Fees (3)	100,000
All Other Fees (4)	1,276,746
Total	$5,138,669

(1) Audit fees are fees for professional services rendered for the integrated audits of our annual consolidated financial statements, including the audit of the effectiveness of our internal control over financial reporting, quarterly reviews of the condensed consolidated financial statements included in Form 10-Q filings, and services that are normally provided by PricewaterhouseCoopers LLP in connection with statutory/subsidiary financial statement audits, attestation reports required by statute or regulation, and comfort letters and consents related to SEC filings.

(2) Audit-related fees generally include fees for assurance and related services that are traditionally performed by the independent registered public accounting firm. These services include attestation and agreed-upon procedures which address accounting, reporting and control matters that are not required by statute or regulation, pension plans and service organization control examinations. These services are normally provided in connection with the recurring audit engagement.

(3) The tax-related services were all in the nature of tax compliance.

(4) All other fees were for advisory services rendered supporting management's development of the annual resolution plan, assessment of regulatory model results, and information technology and operational benchmarking.

EXAMPLE 2: Sterling Bancorp is classified as a firm using their external auditor, Crowe Horwath, for regulatory advisory services as shown in the 2013 proxy statement below:

Audit Fees. The aggregate fees billed to us by Crowe Horwath LLP for professional services rendered by Crowe Horwath LLP for the audit of our annual financial statements, review of the financial statements included in our Quarterly Reports on Form 10-Q and services that are normally provided by Crowe Horwath LLP in connection with statutory and regulatory filings and engagements were $475,550 during the fiscal year ended September 30, 2013 and $476,775 during the fiscal year ended September 30, 2012.

Audit Related Fees. The aggregate fees billed to us by Crowe Horwath LLP for assurance and related services rendered by Crowe Horwath LLP that are reasonably related to the performance of the audit and review of the financial statements and services provided in connection to the merger of Provident New York Bancorp and Sterling Bancorp, benefit plan audits, capital offerings and the acquisition of Gotham Bank of New York that are not already reported in "Audit Fees," were $149,905 during the fiscal year ended September 30, 2013 and $201,250 during the fiscal year ended September 30, 2012.

Tax Fees. The aggregate fees billed to us by Crowe Horwath LLP for professional services rendered by Crowe Horwath LLP for tax consultations and tax compliance were $94,980 during the fiscal year ended September 30, 2013 and $136,790 during the fiscal year ended September 30, 2012.

All Other Fees. The aggregate fees billed to us by Crowe Horwath LLP primarily for internal audit services with respect to regulatory compliance consulting were $62,700 during the fiscal year ended September 30, 2013 and $136,790 during the fiscal year ended September 30, 2012.

EXAMPLE 3: International Bancshares Corporation is classified as a firm not using their external auditor, McGladrey LLP, for regulatory advisory services as shown in the 2012 proxy statement below:

| | December 31, | |
	2012	2011
Audit Fees(1)	$1,230,428	$1,223,545
Audit-Related Fees	—	—
Audit and Audit Related Fees	1,230,428	1,223,545
Tax Fees(2)	177,132	197,109
All Other Fees	—	—
Total Fees	$1,407,560	$1,420,654

(1) Audit fees consist of fees billed for professional services rendered in connection with the audit of the annual consolidated financial statements of the Company, quarterly financial statements included in Forms 10Q, and services that are normally provided in connection with statutory or regulatory filings or engagements.

(2) Tax Fees consisted of fees for tax consultation and tax compliance services.

EXAMPLE 4: Prosperity Bancshares is classified as a firm not using their external auditor, Deloitte & Touche LLP, for regulatory advisory services as shown in the 2013 proxy statement below:

FEES AND SERVICES OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The following table sets forth the fees billed to the Company for the fiscal years ending December 31, 2013 and 2012 by Deloitte & Touche LLP:

	2013	2012
Audit fees(1)	$838,989	$714,622
Audit related fees	51,060(2)	85,700(2)
Tax fees	—	—
All other fees	—	—

(1) Includes fees billed for professional services rendered in connection with the audit and quarterly reviews of the Company's consolidated financial statements, assistance with securities filings other than periodic reports and the audit of internal control over financial reporting as required by the Sarbanes-Oxley Act of 2002.

(2) Consists of fees billed for professional services rendered in connection with the audit of the Company's consolidated financial statements and the Company's participation in the U.S. Department of Housing and Urban Development (HUD) program in accordance with *Governmental Auditing Standards* and the HUD Handbook.

APPENDIX B

Variable Definitions

Variable	Definition and Data Source
Dependent variables:	
CHGO	Loan charge-offs, scaled by beginning total assets (Y-9C Regulatory Reports).
ROA	Net income, scaled by beginning total assets (Y-9C Regulatory Reports).
SMALL	Indicator variable equal to one if the change in ROA from year *t*-1 to year *t* is
POSITIVE Δ	between 0 and 0.0008, and zero otherwise (Y-9C Regulatory Reports).
Variables of Interest:	
LLP	Loan-loss provision, scaled by beginning total assets (Y-9C Regulatory Reports).
POST	Indicator variable equal to one for observations in 2012-2016 and equal to zero for observations in 2004-2008.
REG ADVISORY	Other fees paid to the external auditor, scaled by total fees, and multiplied by 100 (Audit Analytics).
PROXY	Indicator variable equal to one in the first period a bank's proxy statement discloses use of their external auditor for regulatory advisory services, and zero otherwise (proxy statements).
Control Variables:	
ΔNPL	Change in non-performing loans, scaled by non-performing loans in year *t*-1 (Y-9C Regulatory Reports).
SIZE	Natural log of total assets (Y-9C Regulatory Reports).
ΔASSETS	Change in assets, scaled by beginning assets (Y-9C Regulatory Reports).
ΔCASH FLOWS	Change in cash flows, scaled by beginning cash flows. Cash flow is defined as net income before taxes, unrealized holding gains/losses, provision and depreciation expense (Y-9C Regulatory Reports).
$\Delta^2 NPL$	Change in non-performing loans, scaled by the change in total loans (Y-9C Regulatory Reports).
ΔREAL ESTATE LOANS	Change in real estate loans, scaled by total loans, over beginning real estate loans, scaled by total loans (Y-9C Regulatory Reports).
ΔCOMMERCIAL LOANS	Change in commercial loans, scaled by total loans, over beginning commercial loans, scaled by total loans (Y-9C Regulatory Reports).
ΔCONSUMER LOANS	Change in consumer loans, scaled by total loans, over beginning consumer loans, scaled by total loans (Y-9C Regulatory Reports).
BIG N	Indicator variable equal to one if the firm is audited by a Big N auditor, and zero otherwise (Audit Analytics).
TIER 2	Indicator variable equal to one if the firm is audited by a Tier 2 firm, and zero otherwise (Audit Analytics).
TENURE	Number of years the auditor has served the client (Audit Analytics).
NATIONAL AUDIT SPECIALIST	Indicator variable equal to one if the firm is audited by an audit firm classified as an industry specialist at the national level, and zero otherwise. The audit firm is considered a specialist if the audit firm has greater than 25% annual market share at the national level for a given year (Audit Analytics).

Variable	Definition and Data Source
LOCAL AUDIT SPECIALIST	Indicator variable equal to one if the firm is audited by an audit firm classified as an industry specialist at the city level, and zero otherwise. The audit firm is considered a specialist if the audit firm has greater than 50% annual market share at the city level for a given year (Audit Analytics).
ADVISORY	Indicator variable equal to one if the auditor provided advisory services to any audit client during the year as defined by the other fees category on the proxy statement (Audit Analytics).
ADVISORY SPECIALIST	Indicator variable equal to one if the firm is audited by an audit firm classified as an advisory specialist, and zero otherwise. The audit firm is considered an advisory specialist if the audit firm has greater than 25% of the annual market share for advisory fees charged to audit clients for a given year (Audit Analytics).
EMPLOYEES	Total full-time employees, scaled by total non-interest expense (Y-9C Regulatory Reports).
CONSULTING FEES	Total consulting and advisory fees, scaled by other non-interest expense (Y-9C Regulatory Reports).

TABLE 1
Other Fees and Total Fees

Panel A: Mean Other Fees Paid to Auditors and Mean Total Fees Paid to Auditors by Year

Year	Other Fees ($000s)	Total Fees ($000s)	Other Fees as a Percent of Total Fees
2004	112	1,851	6%
2005	124	2,157	6%
2006	72	1,595	5%
2007	74	1,642	5%
2008	184	1,570	12%
2012	300	2,171	14%
2013	855	2,329	37%
2014	384	2,407	16%
2015	409	2,748	15%
2016	238	3,025	8%

Panel B: Mean Other Fees and Mean Total Fees by Audit Firm

Audit Firm	Other Fees ($000s)	Total Fees ($000s)	Other Fees as a Percent of Total Fees
Crowe Horwath	158	1,403	11%
Deloitte	163	6,775	2%
Ernst & Young	673	3,364	19%
KPMG	425	2,307	18%
McGladrey	876	1,247	7%
Moss Adams	18	1,401	1%
PWC	324	5,062	6%

This table provides descriptives on mean other fees (unscaled) and mean total fees paid to the external auditor during the sample period. Panel A provides the descriptives by year. Panel B provides the descriptives by audit firm.

TABLE 2
Sample Descriptive Statistics

Variable	N	Mean	Lower Quartile	Median	Upper Quartile	Std Dev
$CHGO_{t+1}$	680	0.004	0.001	0.002	0.004	0.006
ROA_{q+1}	3,014	0.002	0.002	0.003	0.003	0.002
SMALL POSITIVE Δ	680	0.360	0.000	0.000	1.000	0.360
LLP_t	680	0.003	0.001	0.002	0.003	0.003
POST	680	0.537	0.000	1.000	1.000	0.537
REG ADVISORY$_t$	680	1.771	0.000	0.000	0.580	1.771
ΔNPL	680	0.418	-0.217	-0.022	0.360	1.711
$SIZE_t$	680	11.815	11.258	11.752	12.384	0.881
ROA_q	3,014	0.003	0.002	0.003	0.003	0.002
$\Delta ASSETS$	680	0.123	0.163	0.077	0.164	0.164
$\Delta CASH\ FLOWS$	680	0.002	-0.001	0.000	0.004	0.002
$\Delta^2 NPL$	680	0.310	-2.536	-0.371	4.105	30.701
$\Delta REAL\ ESTATE\ LOANS$	680	-0.001	-0.017	-0.017	0.013	0.029
$\Delta COMMERCIAL\ LOANS$	680	0.001	-0.009	0.002	0.013	0.023
$\Delta CONSUMER\ LOANS$	680	-0.002	-0.007	-0.001	0.002	0.013

This table presents descriptive statistics for the full sample. All variables are defined in Appendix B. All continuous variables are winsorized at the 1st and 99th percentiles.

TABLE 3

Effect of Regulatory Advisory Services on the Validity of the Loan-Loss Provision

Variable	Predicted sign	(1) DV = $CHGO_{t+1}$	(2) DV = $CHGO_{t+1}$
LLP_t	+/-	0.516***	0.466***
		(12.03)	(9.19)
POST	+/-	-0.146***	
		(-5.34)	
REG ADVISORY$_t$	+/-	0.015	0.029
		(0.43)	(0.90)
LLP_t * *REG ADVISORY$_t$*	+/-	0.166***	0.152***
		(3.68)	(3.71)
POST * *REG ADVISORY$_t$*	+/-	-0.019	-0.035
		(-0.56)	(-1.04)
LLP_t * *POST*	+/-	-0.156***	-0.114**
		(-2.82)	(-1.96)
LLP_t * *POST* * *REG ADVISORY$_t$*	-	-0.182***	-0.168***
		(-3.62)	(-3.58)
ΔNPL	+	0.070**	0.044*
		(2.25)	(1.58)
$SIZE_t$	+	0.054***	0.053***
		(4.55)	(4.13)
LLP_t * $SIZE_t$	+/-	0.074***	0.079***
		(3.75)	(3.97)
Clustered standard errors		Bank	Bank
Fixed effects		n/a	Year
Observations		680	680
R-squared		0.742	0.771

This table reports OLS regressions with loan charge-offs (*CHGO*) during year *t*+1 as the dependent variable. Column (1) presents results of the difference-in-differences regression. Column (2) presents results adding year fixed effects to the model. All OLS regressions include standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 4

Effect of Regulatory Advisory Services on Earnings Quality

Variable	Predicted sign	(1) DV = ROA_{q+1}	(2) DV = ROA_{q+1}
ROA_q	+	0.146***	0.122***
		(12.94)	(8.38)
POST	+/-	0.019**	
		(2.00)	
REG ADVISORY$_t$	+/-	-0.007	-0.012
		(-0.42)	(-0.81)
ROA_q * REG ADVISORY$_t$	+/-	0.033**	0.036**
		(1.87)	(2.09)
POST * REG ADVISORY$_t$	+/-	0.006	0.011
		(0.35)	(0.74)
ROA_q * POST	+/-	-0.053**	-0.028
		(-2.24)	(-1.16)
ROA_q * POST * REG ADVISORY$_t$	-	-0.031*	-0.035**
		(-1.57)	(-1.79)
$SIZE_q$	+/-	-0.007	-0.005
		(-1.15)	(-0.87)
ROA_q * $SIZE_q$	+/-	-0.002	-0.003
		(-0.14)	(-0.23)
Clustered standard errors		Bank	Bank
Fixed effects		n/a	Year
Observations		3,014	3,014
R-squared		0.296	0.333

This table reports OLS regressions for the quality of earnings through earnings persistence. The dependent variable in estimation is return on assets (*ROA*) during quarter *q*+1. Column (1) presents results of the difference-in-differences regression. Column (2) presents results adding year fixed effects to the model. All OLS regressions include standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 5

Effect of Regulatory Advisory Services on the Propensity to
Report Small Positive Earnings Changes

Variable	Predicted sign	(1) DV = SMALL POSITIVE Δ	(2) DV = SMALL POSITIVE Δ
REG ADVISORY$_t$	+/-	-0.080**	-0.084**
		(-1.97)	(-1.92)
POST	+/-	0.239***	
		(6.42)	
POST * REG ADVISORY$_t$	+	0.074*	0.079*
		(1.62)	(1.65)
ΔASSETS	-	-0.070***	-0.069***
		(-3.49)	(-3.67)
SIZE$_t$	+/-	-0.062***	-0.064***
		(-2.97)	(-2.98)
ΔCASH FLOWS	+/-	-0.003	-0.014
		(-0.19)	(-0.90)
$\Delta^2 NPL$	+/-	-0.008	-0.000
		(-0.49)	(-0.01)
ΔREAL ESTATE LOANS	+/-	0.001	-0.010
		(0.05)	(-0.46)
ΔCOMMERCIAL LOANS	+/-	-0.009	0.007
		(-0.44)	(0.39)
ΔCONSUMER LOANS	+/-	-0.014	-0.013
		(-0.66)	(-0.70)
Clustered standard errors		Bank	Bank
Fixed effects		n/a	Year
Observations		680	680
Pseudo R-squared		0.074	0.149

This table reports probit regressions with small positive earnings changes (*Small Positive* Δ) during year *t* as the dependent variable. Column (1) presents results of the difference-in-differences regression. Column (2) presents results adding year fixed effects to the model. All OLS regressions include standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 6
Robustness Tests for Selection Bias Using Entropy Balancing Procedure

Panel A: Covariate Balancing before Entropy Balancing Procedure

Variable	Treatment Firms (N = 237)			Control Firms (N = 303)		
	Mean	*Variance*	*Skewness*	*Mean*	*Variance*	*Skewness*
BIG N	0.84	0.13	-1.84	0.78	0.17	-1.34
TIER 2	0.06	0.06	3.66	0.08	0.08	2.99
TENURE	9.51	19.76	0.17	8.71	25.74	0.20
NATIONAL AUDIT SPECIALIST	0.37	0.54	0.54	0.47	0.25	0.14
LOCAL AUDIT SPECIALIST	0.89	0.10	-2.53	0.90	0.09	-2.59
ADVISORY	0.96	0.04	-4.50	0.20	0.16	-4.40
ADVISORY SPECIALIST	0.20	0.15	1.51	0.15	0.13	2.00
EMPLOYEES	0.01	0.00	0.32	0.01	0.00	0.22
CONSULTING FEES	0.14	0.02	0.51	0.14	0.02	0.59

Panel B: Covariate Balancing after Entropy Balancing Procedure

Variable	Treatment Firms (N = 237)			Control Firms (N = 303)		
	Mean	*Variance*	*Skewness*	*Mean*	*Variance*	*Skewness*
BIG N	0.84	0.13	-1.83	0.84	0.13	-1.83
TIER 2	0.06	0.06	3.66	0.06	0.06	3.66
TENURE	9.51	19.76	0.17	9.51	19.76	0.17
NATIONAL AUDIT SPECIALIST	0.37	0.23	0.54	0.37	0.23	0.54
LOCAL AUDIT SPECIALIST	0.89	0.10	-2.53	0.89	0.10	-2.53
ADVISORY	0.96	0.04	-4.50	0.96	0.04	-4.50
ADVISORY SPECIALIST	0.20	0.16	1.51	0.20	0.16	1.51
EMPLOYEES	0.01	0.00	0.32	0.01	0.00	0.32
CONSULTING FEES	0.14	0.02	0.51	0.14	0.02	0.51

Panel C: Regression Results for Entropy Balanced Matched Sample

Variable (Predicted Sign)	Predicted sign	(1) DV = $CHGO_{t+1}$	(2) DV = $CHGO_{t+1}$	(3) DV = ROA_{q+1}	(4) DV = ROA_{q+1}	(5) DV = SMALL POSITIVE Δ	(6) DV = SMALL POSITIVE Δ
LLP_t * POST * REG ADVISORY$_t$	-	-0.227***	-0.206***				
		(-4.24)	(-4.17)				
ROA_q * POST * REG ADVISORY$_t$	-			-0.034**	-0.037**		
				(-1.75)	(-1.86)		
POST * REG ADVISORY$_t$	+					0.076*	0.087**
						(1.62)	(1.72)
Controls		Yes	Yes	Yes	Yes	Yes	Yes
Clustered standard errors		Bank	Bank	Bank	Bank	Bank	Bank
Fixed effects		n/a	Year	n/a	Year	n/a	Year
Observations		680	680	3,014	3,014	680	680
R-squared		0.733	0.770	0.286	0.335	0.074	0.154

This table presents the results of robustness tests using the entropy balanced matched sample. Panel A (B) provides descriptive information on the treatment and control samples before (after) performing the entropy balancing procedure. Panel C presents the regression results with loan charge-offs (*CHGO*) during year $t+1$, return on assets (*ROA*) during quarter $q+1$, and small positive earnings changes (*Small Positive* Δ) during year t as the dependent variables. Columns (1), (3), and (5) present the results of the difference-in-differences regression. Columns (2), (4), and (6) present the results adding year fixed effects to the model. All OLS regressions include the full set of control variables and standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 7
Validation Tests: Cross-Sectional Analyses

Panel A: Regulatory Pressure

Variable	Predicted sign	(1) Has Enforcement Action DV = $CHGO_{t+1}$	(2) Does Not Have Enforcement Action DV = $CHGO_{t+1}$
LLP_t	+/-	0.481***	0.482***
		(5.58)	(7.37)
$POST$	+/-	-0.008	0.074**
		(-0.20)	(2.28)
$REG\ ADVISORY_t$	+/-	-0.006	-0.083***
		(-0.09)	(-2.78)
$LLP_t * REG\ ADVISORY_t$	+/-	0.366**	0.135***
		(1.94)	(2.85)
$POST * REG\ ADVISORY_t$	+/-	-0.044	-0.080**
		(-0.81)	(-2.26)
$LLP_t * POST$	+/-	0.047	-0.193***
		(0.55)	(-2.90)
$LLP_t * POST * REG\ ADVISORY_t$	-	-0.482***	-0.156***
		(-2.67)	(-3.04)
ΔNPL	+	0.061	0.023
		(1.05)	(1.08)
$SIZE_t$	+	0.023	0.036***
		(0.82)	(2.84)
$LLP_t * SIZE_t$	+/-	0.044*	0.076***
		(1.35)	(4.54)
Clustered standard errors		Bank	Bank
Observations		120	560
R-squared		0.806	0.772
Wald tests for coefficient differences:			
*[Has] LLP_t * POST * REG ADVISORY_t - [Does Not Have] LLP_t * POST * REG ADVISORY_t = 0*		Chi-Sq.:	3.02*

Panel B: Audit Committee (AC) Effectiveness

Variable	Predicted sign	(1) AC Size Above Minimum DV = $CHGO_{t+1}$	(2) AC Size Meets Minimum DV = $CHGO_{t+1}$	(3) AC Expertise Above Minimum DV = $CHGO_{t+1}$	(4) AC Expertise Meets Minimum DV = $CHGO_{t+1}$
LLP_t	+/-	0.461***	0.748***	0.806***	0.452***
		(7.95)	(26.00)	(11.37)	(8.36)
POST	+/-	-0.013	0.324***	0.018	0.010
		(-0.36)	(7.66)	(0.44)	(0.23)
$REG\ ADVISORY_t$	+/-	-0.060**	-0.274***	-0.156***	-0.081**
		(-1.75)	(-4.06)	(-2.64)	(-2.21)
$LLP_t * REG\ ADVISORY_t$	+/-	0.155***	0.557***	-0.043*	0.166***
		(3.75)	(6.47)	(-1.39)	(3.82)
$POST * REG\ ADVISORY_t$	+/-	0.005	-0.262***	-0.039	-0.003
		(0.12)	(-5.20)	(-0.87)	(-0.07)
$LLP_t * POST$	+/-	-0.087	-0.439***	-0.516***	-0.092*
		(-1.17)	(-11.47)	(-7.78)	(-1.40)
$LLP_t * POST * REG\ ADVISORY_t$	-	-0.175***	-0.528***	-0.008	-0.156***
		(-3.11)	(-6.94)	(-0.21)	(-2.82)
ΔNPL	+	0.044*	-0.064***	-0.019	0.037
		(1.51)	(-2.38)	(-0.73)	(1.04)
$SIZE_t$	+	0.043***	0.060***	0.034*	0.043***
		(3.27)	(2.97)	(1.59)	(3.07)
$LLP_t * SIZE_t$	+/-	0.084***	0.090***	-0.010	0.084***
		(3.23)	(4.91)	(-0.37)	(3.19)
Clustered standard errors		Bank	Bank	Bank	Bank
Observations		536	84	474	146
R-squared		0.744	0.932	0.760	0.878

Wald tests for coefficient differences:

[Above Median] $LLP_t * POST * REG\ ADVISORY_t$ - [Below Median] $LLP_t * POST * REG\ ADVISORY_t = 0$	Chi-Sq.:	12.46***	Chi-Sq.:	5.64**

This table reports results of the cross-sectional analyses with loan charge-offs (*CHGO*) during year *t*+1 as the dependent variable. Panel A presents the results on regulatory pressure. Columns (1) and (2) report the results of estimating Equation (1) across two subsamples, *Has Enforcement Action* and *Does Not Have Enforcement Action*. Panel B presents the results on audit committee effectiveness. Columns (1) and (2) report the results of estimating Equation (1) across two subsamples, *AC Size Above Minimum* and *AC Size Meets Minimum*. Columns (3) and (4) report the results of estimating Equation (1) across two subsamples, *AC Expertise Above Minimum* and *AC Expertise Meets Minimum*. Tests for coefficient differences across the subsamples are conducted by using seemingly unrelated estimation and the Wald test. Variables are defined in Appendix A. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 8
Alternative Identification of Regulatory Advisory Services

Variable	Predicted sign	(1) DV = $CHGO_{t+1}$	(2) DV = $CHGO_{t+1}$
LLP_t	+/-	0.450	0.625*
		(0.94)	(1.32)
$POST$	+/-	-0.002***	-0.001**
		(-3.93)	(-2.18)
$PROXY_t$	+/-	0.001	0.001
		(0.25)	(0.31)
$LLP_t * PROXY_t$	+/-	0.104	0.095
		(1.09)	(1.01)
$POST * PROXY_t$	+/-	0.001*	0.001
		(1.47)	(1.21)
$LLP_t * POST$	+/-	0.340***	0.350***
		(2.92)	(2.78)
$LLP_t * POST * PROXY_t$	-	-0.393**	-0.391**
		(-2.15)	(-2.29)
ΔNPL	+	0.000**	0.000*
		(1.72)	(1.34)
$SIZE_t$	+	0.000	0.000
		(0.86)	(1.06)
$LLP_t * SIZE_t$	+/-	0.020	0.007
		(0.48)	(0.16)
Clustered standard errors		Bank	Bank
Fixed effects		n/a	Year
Observations		615	615
R-squared		0.714	0.763

This table reports OLS regressions with loan charge-offs (*CHGO*) during year *t*+1 as the dependent variable. Column (1) presents results of the difference-in-differences regression. Column (2) presents results adding year fixed effects to the model. All OLS regressions include standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.

TABLE 9

Sample Upper and Lower Bounds

Variable	Predicted sign	(1) Assets > $9B DV = $CHGO_{t+1}$	(2) Assets > $9B DV = $CHGO_{t+1}$	(3) Assets > $10B DV = $CHGO_{t+1}$	(4) Assets > $10B DV = $CHGO_{t+1}$	(5) Assets > $10B and < $100B DV = $CHGO_{t+1}$	(6) Assets > $10B and < $100B DV = $CHGO_{t+1}$
LLP_t	+/-	0.683***	0.627***	0.705***	0.644***	0.625***	0.533***
		(8.30)	(6.69)	(7.58)	(6.17)	(6.56)	(4.86)
POST	+/-	-0.157***		-0.160***		-0.215***	
		(-4.12)		(-4.22)		(-4.98)	
REG ADVISORY$_t$	+/-	0.090*	0.099**	0.107**	0.117***	0.097**	0.109**
		(1.59)	(1.88)	(1.99)	(2.52)	(1.95)	(2.31)
LLP_t * REG ADVISORY$_t$	+/-	0.259***	0.241***	0.323***	0.303***	0.304***	0.277***
		(2.62)	(2.38)	(4.00)	(3.63)	(3.68)	(3.70)
POST * REG ADVISORY$_t$	+/-	-0.120**	-0.131**	-0.152***	-0.164***	-0.112**	-0.127***
		(-2.00)	(-2.26)	(-2.71)	(-3.16)	(-2.12)	(-2.44)
LLP_t * POST	+/-	-0.120*	-0.072	-0.114*	-0.061	-0.268***	-0.201***
		(-1.41)	(-0.78)	(-1.32)	(-0.66)	(-3.35)	(-2.38)
LLP_t * POST * REG ADVISORY$_t$	-	-0.328***	-0.313***	-0.419***	-0.401***	-0.336***	-0.312***
		(-2.95)	(-2.73)	(-4.78)	(-4.35)	(-3.65)	(-3.60)
ΔNPL	+	0.079**	0.047*	0.050**	0.023	0.093**	0.057*
		(2.22)	(1.52)	(1.89)	(1.13)	(2.24)	(1.55)
$SIZE_t$	+	0.059***	0.058***	0.054***	0.052***	0.141***	0.142***
		(3.71)	(3.69)	(3.00)	(3.00)	(4.99)	(4.87)
LLP_t * $SIZE_t$	+/-	0.075**	0.077**	0.069*	0.072**	0.192***	0.204***
		(2.04)	(2.11)	(1.64)	(1.74)	(3.60)	(3.80)
Clustered standard errors		Bank	Bank	Bank	Bank	Bank	Bank
Fixed effects		n/a	Year	n/a	Year	n/a	Year
Observations		834	834	717	717	559	559
R-squared		0.761	0.786	0.772	0.796	0.749	0.778

This table reports OLS regression results for robustness tests of the sample upper and lower bounds for various asset thresholds, including banks with assets greater than $9 billion with no upper bound, banks with assets greater than $10 billion with no upper bound, and banks with assets greater than $10 billion and less than $100 billion. Loan charge-offs (*CHGO*) during year *t*+1 is the dependent variable. All OLS regressions include standard errors clustered by bank. The constant is unreported. Variables are defined in Appendix B. All continuous independent variables are standardized to a mean zero and standard deviation of one. Continuous variables are winsorized at the 1st and 99th percentiles. ***, **, and * denote two-tailed statistical significance of coefficient estimates at the 1, 5, and 10 percent levels, respectively, when no prediction is given and one-tailed significance when predicted.