Bank Audit Fee Pressure During the Financial Crisis

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SUMMARY: This study examines the pressure on bank audit fees during the height of the financial crisis. I employ a prior year benchmark audit fee method and compare it to the actual audit fee to determine the amount of fee pressure applied in a year. Results show a significant amount of fee pressure exerted upon bank auditors during 2008, more so than that found in studies of other industries. This study also investigates a bank specific fee model during the crisis finding differences in determinants of fees for those banks that did apply fee pressure.

JEL Classifications: M42.
Keywords: audit fees; bank auditors; financial firms; banks.

I. INTRODUCTION

In this study, I investigate audit fees and the presence of fee pressure among banks during the financial crisis of the early 2000s. Scant research exists on banks in the auditing literature because they are markedly different from all other industries in their risks, regulatory requirements, and balance sheet structure (Raghunandan and Rama 1995; Carcello and Neal 2000; Li 2009; Blay and Geiger 2013). Specifically, this has resulted in minimal cognizance on audit fees for auditors of banking firms. A recognition of this absence has been made in recent research through calls for studies of bank firm audits and auditors (Carson et al. 2013; Geiger, Raghunandan, and Riccardi 2014; Masli, Porter, and Scholz 2018).

The financial crisis, which heightened in 2008 (NBER 2010), gave rise to public scrutiny and criticism of the auditing profession's performance (or lack thereof) leading up to and during the financial crisis (Bajaj 2008; Bajaj and Creswell 2008; Rapoport 2010). Coinciding with this concern was the concern that auditors may allow fee pressure to be exerted by companies suffering financially as a result of the financial crisis. The Public Company Accounting Oversight Board (PCAOB) issued a report documenting audit risks and challenges resulting specifically from the financial crisis. In this report, the PCAOB explicitly addresses this concern, noting that "as a result of the economic crisis and other factors, auditors might be pressured to significantly reduce their

Editor's note: Accepted by Lisa Milici Gaynor.

Submitted: June 2019
Accepted: October 2019
Published Online: October 2019
audit fees” (PCAOB 2010). The ability of a company to successfully exert fee pressure over an auditor is problematic as it speaks to independence issues as well as, possibly, quality issues.

Banking firms played a significant role in the financial crisis as both a major contributor to the recession and a primary casualty of the consequences. The stability of the banking industry has long been of concern following numerous crises throughout history (Calomiris and Gorton 1991). Several studies have emphasized the role of bank specific facets contributing to the severity of the most recent financial crisis (Adrian and Shin 2010; Brunnermeier 2009; Laux and Leuz 2010; Mehran, Morrison, and Shapiro 2011). Also, the repercussions experienced particularly by the banking industry have been highlighted in numerous studies (Aubuchon and Wheelock 2010; Jin, Kanagaretnam, and Lobo 2011; Ahmed, Christensen, Olson, and Yust 2019; Cullen, Gasbarro, Monroe, Shailer, and Zhang 2018). As the crisis progressed, banks became increasingly distressed (Masli et al. 2018). By the end of the crisis, many banks had experienced destruction of their equity (Beltratti and Stulz 2012) and 2.4 percent of all banks in operation failed during the crisis (Aubuchon and Wheelock 2010). Given the intensity of the financial constraints experienced by banks during the crisis, investigation into banks’ ability to exert power over auditors via audit fees is essential.

In their research paper, Ettredge, Li, and Fuerherm (2014a) investigate whether the financial constraints during the financial crisis led to audit clients engaging in the placement of fee pressure on their auditors. To analyze this, they develop a precise construct with which to measure the presence of fee pressure. The researchers exclude banks from their study, as is common and appropriate in multi-industry research. The general model used to analyze audit fees is markedly different from the model used to analyze audit fees among banks. The bank fee model focuses primarily on financial metric variables, while the all-industry model incorporates many non-financial company characteristic measures. The nature of the differences in these models makes the audit fee model for banks more sensitive to the risks and responses of companies to the financial crisis.

I follow the methodology of Ettredge et al. (2014a) and invoke a bank specific fee model originally developed by Fields, Fraser, and Wilkins (2004) and subsequently extended in other studies. I measure the occurrence of banks exerting fee pressure on auditors during the height of the financial crisis in 2008. This is compared to years prior to and subsequent to the main crisis year, as well as to fee pressure experienced in other industries. Finally, I analyze the bank fee model for a sample of banks where fee pressure is present separately from a sample of banks where fee pressure was not present.

The sample consists of 217 bank observations in the main crisis year, 2008. The sample consists of commercial banks and savings institutions and 43 percent of the sample is audited by a Big 4 auditor. For approximately 65 percent of the banks in the sample, the presence of fee pressure was captured by the construct.

This study contributes to existing research by providing inferences on audit fee pressure specific to banks during the financial crisis period. While fee cuts have been investigated among banks, I utilize a more precise fee pressure variable and incorporate the seminal bank audit fee model, which has yet to be investigated for bank auditors. My study informs research on both the effects of the financial crisis and facets of audit fees specific to banks and their auditors. Revelations from these analyses can provide researchers and practitioners with a deeper understanding of bank audits to employ in practice and future research endeavors in this underexplored area.

In Section II, I present the background leading to the research questions. In Section III, I describe the sample of banks and the methodology employed to analyze the sample. In Section IV, I provide results and, finally, in Section V conclude the paper.
II. BACKGROUND AND RESEARCH QUESTIONS

The financial crisis, which lasted from late 2007 until mid-2009, marked a recession that greatly impacted many companies and individuals negatively. The crisis, which triggered shocks to the stock market, housing market, and labor market, caused rapid declines in stock prices and increases in unemployment. According to the National Bureau of Economic Research (NBER), the S&P 500 dropped 17 percent in October 2008 while unemployment was at 7.4 percent in December 2008, peaking at 10 percent in October 2009, up from 4.7 percent in September 2007. NBER found that almost 40 percent of households were affected by the crisis (NBER 2010).

Although many felt the impact, the banking industry was primarily affected during the crisis. In large part, the crisis stemmed from banks extending bad home mortgage loans and/or purchasing subprime mortgage-backed securities. When housing prices fell, these loans and securities also lost their value and triggered a serious crisis in the banking industry (Hendrickson and Nichols 2011). Afterward, the United States witnessed a substantial number of bank failures attributable to both bad investments by the banks and the struggling economy that followed. According to the Federal Deposit Insurance Corporation (FDIC), a total of 466 commercial banks and thrifts failed between January 1, 2007 and October 26, 2012. The total number of bank failures during this period is especially noteworthy given that only 24 commercial banks and thrifts failed during the prior seven years (January 2000 through December 2006). Fuchs and Bosch (2009) attribute banks’ sensitivity to these events to various factors, including (1) imbalances between risk and return, (2) failure to diversify, (3) management offering products that they do not understand, and (4) poor management of risks. Furthermore, Chessen (2010) notes that after the crisis there has been a shift from financial institutions that failed because they took too great a risk on housing to financial institutions that fail because they serve communities and companies that suffered greatly from the subsequent recession. As a result of the crisis, banks have experienced changes in the size of their industry, alterations to the structure of their assets and revenue mix, declines in profitability, and increased regulation under which they operate (Committee on the Global Financial System 2018).

Multiple studies address audit specific repercussions from the financial crisis. Ettredge, Fuerherm, Guo, and Li (2017) investigate compromised independence between auditors and clients as a result of the recession. An analysis of audit quality surrounding the crisis as perceived by investors is done in Shahzad, Pouw, Rubbaniy, and El-Temtamy (2018). Also, audit earnings quality and audit quality resulting from crisis fee cuts has been researched (Chen, Krishnan, and Yu 2018).

As the banking industry was at the heart of this crisis, some studies investigate the crisis with a spotlight on banks and bank auditors. Doogar, Rowe, and Sivadasan (2014) investigate auditors’ response to shifting bank risks during the financial crisis. Another study investigates whether there were indications of impending stress in bank financial statements and whether or not auditors responded appropriately (Desai, Rajgopal, and Yu 2016). The topic of going concern opinion issuance among banks during the crisis is addressed in a paper by Masli, Porter, and Scholz (2018). All these papers provide insight into the role the bank auditors played in the crisis as well as the repercussions felt by banks and bank auditors due to the crisis.

The financial hardships felt by firms during the recession could, arguably, lead to firms placing pressure on audit firms to reduce the fees charged to them for audit services. The PCAOB
indicated concern for the possibility that “clients expect auditors to share the economic pain by agreeing to fee reductions” (Goelzer 2010). In fact, Ettredge et al. (2014a) investigate fee pressure during the crisis finding that significant fee pressure was exerted on auditors during 2008. However, they exclude banking firms from their analysis. As the crisis hit, the risks associated with banks, compared to other industries, became particularly amplified. Not only were they experiencing financial turmoil as a result of the crisis, but their role in the crisis set them apart as a risky type of business during this time. Higher risk companies require greater effort, which intuitively would result in higher audit fees. As such, auditors had more incentive to not succumb to banking firms’ fee pressure attempts through recognition of the risks posed to the auditor and the engagement.

The fee model used for banks, compared to that used in Ettredge et al. (2014a), incorporates multiple variables that are particularly sensitive to financial turmoil and economically troublesome periods. For example, the amount of nonperforming loans as well as amounts necessary to charge off by the bank would be increased during financially troubled times. The majority of variables employed in the all-industry fee model are not susceptible to immediate change when difficult economic times hit (i.e., foreign transactions, restatements). As such, differences from the findings for all industries would be expected for banks. I investigate through the research question stated below.

**RQ1:** During the financial crisis, did bank auditors experience fee pressure?

I note that the Krishnan and Zhang (2014) study investigates “audit fee cuts” for banks during the crisis. However, the main focus of that paper is financial reporting quality among banks during and after the crisis. The focus here is specifically audit fee pressure. Additionally, the fee cut measure is quite different and less precise than my current measure of fee pressure. Their measure captures simply the change in fee from the prior year, not the pressure allowed by the banking client to be exerted over the auditor. No measures of bank risk are factored into the determination of fee cuts as this study does in the determination of fee pressure.

**III. SAMPLE AND METHOD**

**Sample**

I select my sample from the intersection of the bank regulatory filing (FR Y-9C) dataset from the Wharton Research Data Services and the Audit Analytics Opinions database. The focus is the change in audit fees between 2007 and 2008. I obtain data for all companies covered from 2006 through 2009. I focus on 2008, the year of interest, and use additional years for comparison purposes. Banks that do not have fee data in both 2008 and 2007 are excluded, as well as banks without variables to estimate the fee model. This leaves a sample of 217 banks in 2007 and 234 banks in 2008 to perform the analyses on.

**Methodology and Bank Fee Model**

I follow the methodology used in Ettredge et al. (2014a) to construct a measure of fee pressure. The variable is made bank specific by employing a bank specific audit fee model based upon Fields et al. (2004) and extended in subsequent research (Kanagaretnam, Krishnan, and Lobo 2010; Ettredge, Xu, and Yi 2014b; Desai, Rajgopal, and Yu 2016; Kohlbeck, Smith, and Valencia 2017). This model accounts for the different risks and complexities among banks due to
their unique regulatory environment and different balance sheet components. The bank fee model incorporates these separate risks and complexities and is as follows:1

\[
LNAUDITFEE = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{BIG4} + \beta_3 \text{INDSPEC} + \beta_4 \text{NONPERFORM} + \beta_5 \text{CHGOFF} + \beta_6 \text{CAPRATIO} + \beta_7 \text{EFFICIENCY} + \beta_8 \text{SENSITIVE} + \beta_9 \text{INTANG} + \beta_{10} \text{RETMORT} + \beta_{11} \text{MORT} + \beta_{12} \text{GWIMPAIR} + \beta_{13} \text{DELAY} + \beta_{14} \text{SAVINGS} + e
\]

where:

Dependent Variable:
\( LNAUDITFEE \) = log transformed audit fees;

Independent Variables:
\( \text{NONPERFORM} \) = nonperforming loans/gross loans;
\( \text{CHGOFF} \) = net charge offs/loan loss reserve;
\( \text{CAPRATIO} \) = Tier 1 capital ratio, Tier 1 capital/risk weighted assets;
\( \text{EFFICIENCY} \) = total operating expenses/total revenue;
\( \text{SENSITIVE} \) = interest rate sensitive assets/total assets;
\( \text{INTANG} \) = intangible assets/total bank assets;
\( \text{RETMORT} \) = retained residual interests from residential mortgages/total assets;
\( \text{MORT} \) = residential mortgages/total assets;
\( \text{GWIMPAIR} \) = 1 if goodwill impairment exists and is greater than 0;
\( \text{DELAY} \) = time between balance sheet date and report issuance date;
\( \text{SAVINGS} \) = 1 for savings banks, and 0 otherwise;
\( \text{SIZE} \) = log transformed total bank assets;
\( \text{BIG4} \) = 1 if auditor is a Big 4 auditor, and 0 otherwise; and
\( \text{INDSPEC} \) = 1 if auditor is PWC or KPMG, and 0 otherwise.

In order to determine if auditors of banks experienced fee pressure, I create an estimate of what one would expect the fee to be given no financial crisis. So, I create a Benchmark Fee following Ettredge et al. (2014a). The Benchmark Fee for 2008 represents the expectation of audit fees for 2008 given the actual fee in 2007. To calculate this, I run the bank audit fee model (1) using 2007 bank observations. Then, vectors are taken of the estimated model parameters from the 2007 estimation and applied to each bank's 2008 values for each model variable. The result gives a 2008 Benchmark Fee. The anti-log value is taken and subtracted from the actual fees incurred in 2008 to give a measure of bank auditor fee pressure. If the actual fees are lower than the benchmarked fees, we can interpret that as the existence of fee pressure.

\[
\text{Bank Auditor Fee Pressure} = 2008 \text{ Actual Fees} - 2008 \text{ Benchmark Fee}
\]

Once the determination of the amount of Bank Auditor Fee Pressure has been made, I can separately analyze Equation (1) for bank observations with fee pressure (Bank Auditor Fee Pressure < 0) as captured by the measure and for bank observations without fee pressure (Bank Auditor Fee Pressure > 0). For comparison purposes, I perform this same estimation for observation years 2006, 2007, and 2009.

1 Firm and year subscripts suppressed for simplicity. Variables are not lagged.
IV. RESULTS

Descriptive Statistics

Table 1 shows descriptive statistics for the sample of 2008 banks. Panel A displays summary measures from the bank fee model while Panel B displays specific audit firm statistics. Approximately 43 percent of the sample is audited by a Big 4 auditor and 25 percent by a banking industry specialist. No significant differences in statistics can be seen between the Fee Pressure and No Fee Pressure groups indicating the banks that successfully exerted fee pressure are not markedly different from those banks that did not.

In Table 1, Panel B we can see which audit firms the banks in the sample employed. Interestingly, and as noted in Panel A, the majority of banks were not audited by one of the Big 4 auditors. KPMG does audit the most banks in the sample with 19 percent. This is consistent with previous banking literature identifying KPMG as an industry expert (Jin et al. 2011; DeBoskey and Jiang 2012; Masli et al. 2018). They are followed by Ernst & Young, auditing 12 percent of the bank engagements during 2008. PricewaterhouseCoopers, who is considered an industry specialist in the literature, audited 6 percent of the sample. Panel B also shows how many of the banks audited by these audit firms were able to exert fee pressure, based on the metric. Most of the audit firms (and all of the Big 4 firms) experienced this fee pressure on over half of their engagements. For KPMG, the dominant auditor in the sample, 69 percent of the audits show the presence of fee pressure. This calculates to approximately 28 bank audits in 2008. These results emphasize the dominance of fee pressure exerted by banks during the crisis.

Fee Pressure

Table 2 presents the model fee estimation for 2007. This table provides insight on the coefficient estimates used to construct the fee pressure metric for 2008. As would be expected, the size of a bank as well as the auditor type (Big 4 versus non-Big 4) are significant factors in the pricing of the audit. Additionally, several bank specific risk variables appear to influence the audit engagement fees. Coefficient estimates and directions are in line with extant research in this area.

In Table 3, I report results for the Fee Pressure variable. As described earlier, the Fee Pressure variable represents the difference between the predicted fee values (based on a previous year benchmark) and the actual audit fee incurred. Negative values of the variable indicate the existence of fee pressure on the bank auditor. Panel A shows how often fee pressure was exerted among banks from the years 2006 through 2009. As we can see, for the most part the percentages increase as time goes on. A significant amount of bank audit engagements (well over half) display lower actual audit fees than was expected from the prior year-based prediction. And, this increases in 2008 to 65 percent from 56 percent in 2007. The rate eases slightly to 62 percent in 2009. This confirms that, during the heart of the financial crisis, banks were able to exert fee pressure more often than during the other years surrounding the crisis. In fact, banks were able to exert fee pressure more often than in non-banking industries. Previous findings indicate that fee pressure was exerted in 47 percent of non-banking clients in 2008 (Ettredge et al. 2014a). The bank fee pressure exertion rate of 69 percent reveals that this phenomenon was even more salient among banks and bank auditors. This is surprising and even unexpected given the complicated financial trouble encountered by banks as well as the high risk business type they represented at this point.

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2 See Appendix A for examples of fees, changes in fees, and fee pressure amounts for companies with large fee pressure values within the sample.
in time. The fact that banks were able to exert even more fee pressure than other industry firms could point out audit firms’ own financial struggles during the crisis as well as shifts to their analysis of client risks and benefits. It should be alarming that audit firms were not only willing to take on such risky clients but to do it at an unsuitably low fee.

TABLE 1
Descriptive Statistics

Panel A: Variable Details

| Variable         | All 2008 Bank Observations | Fee Pressure Observations | No Fee Pressure Observations |
|------------------|-----------------------------|---------------------------|------------------------------|
|                  | Mean | Median | Std. Dev. | Mean | Median | Std. Dev. | Mean | Median | Std. Dev. |
| SIZE             | 14.95| 14.64  | 1.49      | 15.06| 14.80  | 1.49      | 14.74| 14.40  | 1.47      |
| BIG4             | 0.43 | 0.00   | 0.50      | 0.45 | 0.00   | 0.50      | 0.39 | 0.00   | 0.49      |
| INDSPEC          | 0.25 | 0.00   | 0.44      | 0.28 | 0.00   | 0.45      | 0.21 | 0.00   | 0.41      |
| NONPERFORM       | 2.72 | 1.90   | 2.59      | 2.59 | 1.83   | 2.56      | 2.97 | 2.30   | 2.65      |
| CHGOFF           | 48.90| 35.94  | 44.74     | 54.23| 38.46  | 50.43     | 39.00| 32.43  | 29.44     |
| CAPRATIO         | 11.38| 11.22  | 2.31      | 11.36| 11.27  | 2.35      | 11.42| 11.12  | 2.24      |
| EFFICIENCY       | 0.66 | 0.65   | 0.12      | 0.67 | 0.66   | 0.13      | 0.65 | 0.64   | 0.11      |
| SENSITIVE        | 0.06 | 0.05   | 0.17      | 0.06 | 0.05   | 0.17      | 0.05 | 0.05   | 0.16      |
| INTANG           | 0.02 | 0.01   | 0.02      | 0.02 | 0.01   | 0.02      | 0.02 | 0.01   | 0.02      |
| RETMORT          | 0.04 | 0.00   | 0.63      | 0.00 | 0.00   | 0.00      | 0.01 | 0.00   | 1.06      |
| MORT             | 0.84 | 0.00   | 5.68      | 0.00 | 0.00   | 0.01      | 0.12 | 0.00   | 1.06      |
| GWIMPAIR         | 0.18 | 0.00   | 0.38      | 0.23 | 0.00   | 0.42      | 0.09 | 0.00   | 0.29      |
| DELAY            | 69.69| 72.00  | 10.14     | 68.84| 71.00  | 10.94     | 71.26| 72.00  | 8.29      |
| SAVINGS          | 0.03 | 0.00   | 0.16      | 0.03 | 0.00   | 0.17      | 0.03 | 0.00   | 0.16      |
| n                | 217  |        |           | 141  |        |           | 76   |        |           |

Panel B: Auditor Breakout

| Auditor          | All 2008 Bank Observations | % of Engagements |
|------------------|-----------------------------|------------------|
|                  | Bank Fee Pressure Present  |
| KPMG             | 42 19%                      | 69%              |
| Ernst & Young    | 25 12%                      | 68%              |
| Crowe Horwath    | 24 11%                      | 54%              |
| Deloitte & Touche| 14 6%                       | 57%              |
| PricewaterhouseCoopers | 13 6%         | 77%              |
| BKD              | 10 5%                       | 80%              |
| Grant Thornton   | 10 5%                       | 20%              |
| Moss Adams       | 9 4%                        | 56%              |
| McGladrey & Pullen| 7 3%                      | 57%              |
| All Others       | 63 29%                      |                  |

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Statistics for the *Fee Pressure* variable (not scaled by total assets) among banks in 2008 is shown in Panel B of Table 3. For all observations, the mean *Fee Pressure* is $264,100. So, for all observations, the mean is positive, which means no fee pressure. The median is negative, which indicates a fee pressure exertion on bank auditors of $26,885, for all 2008 observations. For the observations that displayed fee pressure exertion, the mean was an exertion of $365,771 and the median was an $113,048 exertion. Given the median audit fee for this group of $325,100, this works out to a 35 percent ratio of dollar value of fee pressure to audit fees. This is in line with the ratio found in Ettredge et al. (2014a). So, while banks were able to exert fee pressure on bank auditors more often than non-bank auditors, the amount of fee pressure exerted, respectively, was similar.

In Table 3, Panel C, I scale *Fee Pressure* by total assets to compare means and medians among differing time periods. Metrics for all observations in 2008 indicate a negative mean of 0.010 and a median of (0.017). Compared to all other years (2006, 2007, 2009), the median in 2008 is more negative, indicating more fee pressure comparatively (all p-values indicate significance for median differences except for 2009).

The mean for the *Fee Pressure* variable among bank observations where fee pressure was exerted is (0.056) while the median is (0.041). In the year directly preceding the main crisis year, we see a significant difference in the median. The median value for the *Fee Pressure* variable among banks that successfully exerted fee pressure in 2008 is (0.041), which again is more negative than the value in 2007 of (0.032). The difference is significant with a p-value of 0.013.

### TABLE 2
Audit Fee Model Estimation for Banks in 2007

LNAUDITFEE = $b_0 + b_1 SIZE + b_2 BIG4 + b_3 INDSPEC + b_4 NONPERFORM + b_5 CHGOFF + b_6 CAPRATIO + b_7 EFFICIENCY + b_8 SENSITIVE + b_9 INTANG + b_{10} RETMORT + b_{11} MORT + b_{12} GWIMPAIR + b_{13} DELAY + b_{14} SAVINGS + \epsilon$

| Variable   | Coefficient | t-statistic |
|------------|-------------|-------------|
| SIZE       | 0.60        | 19.94***    |
| BIG4       | 0.33        | 4.12***     |
| INDSPEC    | 0.10        | 1.29        |
| NONPERFORM | -0.03       | -0.60       |
| CHGOFF     | 0.00        | 2.69***     |
| CAPRATIO   | 0.00        | -3.20***    |
| EFFICIENCY | 0.90        | 2.99***     |
| SENSITIVE  | 0.73        | 4.00***     |
| INTANG     | 1.51        | 1.10        |
| RETMORT    | 0.02        | 0.78        |
| MORT       | -0.01       | -2.52**     |
| GWIMPAIR   | 0.13        | 1.02        |
| DELAY      | 0.00        | 0.50        |
| SAVINGS    | -0.02       | -0.18       |

| n          | 234         |
| R²         | 0.88        |

***, **, * Denotes p < 0.01, p < 0.05, and p < 0.10, respectively.
TABLE 3
Bank Audit Fee Pressure

Panel A: Fee Pressure Rate Among Banks

|         | 2009 | 2008 | 2007 | 2006 |
|---------|------|------|------|------|
| Fee Pressure | 131  | 141  | 130  | 113  |
|          | 62%  | 65%  | 56%  | 44%  |
| No Fee Pressure | 81   | 76   | 104  | 146  |
|          | 38%  | 35%  | 44%  | 56%  |
|          | 212  | 217  | 234  | 259  |

Panel B: Fee Pressure Variable Statistics

|                  | 2008 |
|------------------|------|
|                  | Mean | Median | Std. Dev. |
| All 2008 Observations |      |        |           |
| Fee Pressure      | 264,100 | (26,885) | 4,473,721 |
| Audit Fees        | 1,463,505 | 283,700 | 6,520,777 |
|                   | 18%   | 9%     |           |
| Fee Pressure Observations |      |        |           |
| Fee Pressure      | (365,771) | (113,048) | 807,602 |
| Audit Fees        | 777,117 | 325,100 | 1,733,560 |
|                   | 47%   | 35%    |           |

Panel C: Bank Fee Pressure Comparison

|                  | 2008 |
|------------------|------|
|                  | Mean | Median | Std. Dev. |
| All              |      |        |           |
| Fee Pressure     | (0.010) | (0.017) | 0.093 |
| If Fee Pressure Exists |      |        |           |
| Fee Pressure     | (0.056) | (0.041) | 0.055 |

(continued on next page)
| Panel D: Bank Fee Pressure Comparison (continued) |
|-----------------------------------------------|

|       | 2007 |          |          | 2006 |          |          | 2009 |          |          |
|-------|------|----------|----------|------|----------|----------|------|----------|----------|
|       | Mean | Median (p-value) | Difference from 2008 Mean (p-value) | Median (p-value) | Difference from 2008 Median (p-value) | Mean | Median (p-value) | Difference from 2008 Mean (p-value) | Median (p-value) | Difference from 2008 Median (p-value) |
| All   |      |          |          |      |          |          |      |          |          |
| Fee Pressure (0.070) (0.008) | 0.487 | 0.007 | 0.022 | 0.006 | 0.000 | 0.000 | (0.015) | (0.014) | 0.683 | 0.412 |
| If Fee Pressure Exists | Fee Pressure (0.185) (0.032) | 0.363 | 0.013 | (0.037) | (0.031) | 0.001 | 0.008 | (0.056) | (0.036) | 0.971 | 0.069 |
While there is not a significant difference among means, the median statistics indicate that the fee pressure exerted in the crux of the financial crisis was larger than in the year preceding it. When looking at 2006, there are quite significant differences. Means and medians for fee pressure observations are significantly more negative indicating a much higher amount of fee pressure in 2008. The change in mean from 2006 to 2008 is significant at the 0.01 level. I also analyze comparisons with the year 2009 to see if the phenomenon persists. Results indicate that it does not persist. Decreases are shown from 2008 to 2009, when the crisis eased as indicated by the mean and median. These are primarily non-significant. Overall, it appears that during the main recession year, there was significantly more fee pressure exerted than in the periods prior to 2008.

Next, I reexamine the fee model separately for banks that exerted fee pressure over their auditors from banks that did not (i.e., bank observations with negative values for the Fee Pressure variable versus bank observations with positive values for the Fee Pressure variable). Table 4 displays these results. SIZE, BIG4, and INDSPEC are significant in both models indicating that the size of a bank and the type of auditor employed by the bank are both significant factors in the determination of audit fees for an engagement regardless of whether or not fee pressure exists. The bank variable, CAPRATIO, operates similarly. The higher the value of the Tier 1 Capital ratio, the higher the audit fee for both the Fee Pressure sample and the No Fee Pressure sample.

Some differences exist when running the fee model based on whether fee pressure exists or not. SIZE is a significantly larger factor when fee pressure does not exist. When considering the bank risk factors, both CAPRATIO and SENSITIVE are stronger determinants of audit fees when fee pressure does not exist than when there is fee pressure captured by the measure. Higher values of the Tier 1 capital ratio and interest rate sensitivity are indicative of higher audit fees for banks without fee pressure placed on the auditors. This suggests that, specifically for banks that did not apply fee pressure over bank auditors, riskier levels of Tier 1 capital render higher audit fees. Similarly, banks that are more sensitive to interest rates are associated with higher audit fees if no fee pressure on the auditor is present. These variables would be expected to, in general, factor into audit fees. So, these findings indicate that, when fee pressure is applied, the bank auditors do not factor in some of the variables normally considered in the determination of audit fees. The time between the end of the fiscal year and opinion issuance (DELAY) shows the same pattern: significant when no fee pressure is applied but not indicative of fees when fee pressure is encountered.

My analyses reveal that banks did in fact exert fee pressure over their auditors as a result of the financial crisis. Fee pressure was more common among banking firms than other industries, however, the relative amount of fee pressure applied was consistent with other industry findings. Fee model results indicate that differences exist among bank specific fee indicator variables in the determination of audit fees between banks that applied fee pressure on auditors and banks that did not have fee pressure.

V. CONCLUSION

In this paper, I look at fee pressure among banks during the financial crisis. The financial industry was heavily affected by this crisis, so it would be expected for banks to attempt fee pressure exertion over their auditors. However, banks were an especially risky client type during this period, so it would also be expected for bank auditors to resist the fee pressure exertion based on a risk assessment. I estimate a bank specific audit fee model in 2007 to analyze the factors influencing audit fees during the crux of the crisis. Next, I investigate the extent to which banks were able to exert fee pressure on bank auditors when the crisis was affecting many industries.
compare bank auditor fee pressure in 2008 to previous and subsequent years as well as to fee pressure documented in other industries. Finally, I examine the bank audit fee model separately for observations where fee pressure is present and observations where fee pressure is not present.

Results indicate that banks did, indeed, employ fee pressure onto bank auditors during the height of the financial crisis. The fee pressure observed among banks in 2008 was significantly more than in the preceding years and fee pressure appears to have been applied more frequently among banks than among non-banking firms as documented in prior research. Additionally, in instances where fee pressure was applied, the auditors do not appear to have been incorporating some of the typical indicators into the determination of fees.

This study contributes to the literature documenting the full effect of the financial crisis. While fee pressure has been investigated in the setting of the financial crisis, banks are excluded from investigation. It provides analysis of the crisis effects on audit fees specifically for banks. Additionally, it provides inferences on audit fees and audit fee pressure specific to banks during this period. While fee cuts have been investigated among banks, I utilize the more precise fee pressure variable that has yet to be investigated for bank auditors. The study informs research on both the effects of the financial crisis and facets of audit fees specific to banks and their auditors.

The financial crisis of 2008 provides an optimal setting in which to investigate banks because of their responsibility as well as repercussions. Future research along the same route could look at

### TABLE 4
Fee Model by Fee Pressure or No Fee Pressure

\[
L_{\text{NAUDITFEE}} = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{BIG4} + \beta_3 \text{INDSPEC} + \beta_4 \text{NONPERFORM} + \beta_5 \text{CHGOFF} + \beta_6 \text{CAPRATIO} + \beta_7 \text{EFFICIENCY} + \beta_8 \text{SENSITIVE} + \beta_9 \text{INTANG} + \beta_{10} \text{RETMORT} + \beta_{11} \text{MORT} + \beta_{12} \text{GWIMPAIR} + \beta_{13} \text{DELAY} + \beta_{14} \text{SAVINGS}
\]

| Variable | Fee Pressure | | No Fee Pressure | | p-value for Difference |
|----------|--------------|-----------------|-----------------|---------------------|
| SIZE     | 0.56         | 18.38***        | 0.68            | 28.89***            | 0.00              |
| BIG4     | 0.35         | 5.24***         | 0.31            | 3.87***             | 0.69              |
| INDSPEC  | 0.12         | 1.80*           | 0.22            | 2.36**              | 0.37              |
| NONPERFORM | -0.01       | -0.58           | 0.00            | -0.01               | 0.67              |
| CHGOFF   | 0.00         | 3.44***         | 0.00            | 2.87***             | 0.24              |
| CAPRATIO | 0.00         | 0.36            | 0.03            | 2.35**              | 0.06              |
| EFFICIENCY | 0.71       | 3.57***         | 0.93            | 3.28***             | 0.49              |
| SENSITIVE| 0.33         | 2.69***         | 0.73            | 3.68***             | 0.06              |
| INTANG   | 1.66         | 1.47            | -0.34           | -0.18               | 0.31              |
| RETMORT  | 1.78         | 0.98            | -0.01           | -0.92               | 0.30              |
| MORT     | 0.00         | -0.05           | -0.01           | -5.96***            | 0.23              |
| GWIMPAIR | 0.13         | 2.23**          | 0.36            | 2.31**              | 0.13              |
| DELAY    | 0.00         | -0.93           | 0.02            | 3.38***             | 0.00              |
| SAVINGS  | -0.19        | -2.29**         | -0.34           | -4.43***            | 0.13              |
| n        | 141          |                 | 76              |                     |                   |
| Adjusted $R^2$ | 0.90 |                 | 0.91            |                     |                   |

***, **, * Denotes p < 0.01, p < 0.05, and p < 0.10, respectively.
audit opinion pressure. Just as this analysis found audit fee pressure, there likely could have been pressure placed on bank auditors to give favorable opinions.

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### APPENDIX A

#### Large Fee Pressure Examples

| Company | Audit Fees Incurred | Fee Prediction Estimate 2008 | Fee Pressure Estimate 2008 |
|---------|---------------------|-----------------------------|-----------------------------|
| A       | 4,875,300 3,772,300 | 10,233,256                  | (6,460,956)                 |
| B       | 2,257,000 1,929,000 | 5,813,144                   | (3,884,144)                 |
| C       | 3,325,500 3,792,740 | 7,383,261                   | (3,590,521)                 |
| D       | 3,837,000 2,018,000 | 4,419,131                   | (2,401,131)                 |
| E       | 2,265,220 2,419,640 | 4,532,141                   | (2,112,501)                 |
| F       | 7,900,000 6,400,000 | 8,282,703                   | (1,882,703)                 |
| G       | 17,600,000 17,827,000 | 19,534,656                 | (1,707,656)                 |
| H       | 2,321,970 2,062,160 | 3,631,890                   | (1,569,730)                 |
| I       | 1,878,450 1,877,310 | 3,445,113                   | (1,567,803)                 |
| J       | 2,590,000 3,160,000 | 4,703,225                   | (1,543,225)                 |
| K       | 795,450 808,200 | 1,947,947                   | (1,139,747)                 |

Appendix A displays companies in the sample with the largest amount of fee pressure. Current year fees, prior year fees, and fee predictions are shown to provide insight on the extent of fee pressure.