Qualified audit opinions and debt contracting

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ABSTRACT

We examine the effect of qualified audit opinions on private debt contracts. Consistent with the monitoring role of audit opinion on accounting quality, we find that a qualified audit opinion is associated with an average increase of 18 basis points in the interest rate of loan facilities issued in the year following a QAO. We find that this effect persists for at least three years with an average increase of 8 basis points in the interest rate for these loans. Furthermore, we find evidence that lenders replace financial covenants with non-financial covenants following a qualified audit opinion of the borrower's financial statements. We also find that qualified audit opinions are associated with decreases in loan size and increases in the requirement of collateral from the borrower, but we find no evidence that qualified audit opinions are associated with change in the length of loan maturity. Finally, we find that qualified audit opinions are associated with decreased use of performance pricing provisions in debt contracts. A variety of additional tests demonstrate that the effects of a qualified audit opinion on contractual terms are robust after controlling for other indicators of accounting quality such as abnormal accruals, volatility of accounting accruals and disclosure of internal control weakness. These results are not obvious given that private lenders have access to private information unavailable to most market participants and suggest that auditors play a unique role in debt contracting through monitoring borrowers' accounting quality.

I. Introduction

A fundamental feature of financial reporting is that an auditor is hired to attest to the quality of the financial statements prepared by management. The economic value of an audit opinion to users of financial statements is of great interest to academic researchers and accounting practitioners, especially in times when auditing is under considerable regulatory and public scrutiny (Francis 2004; DeFond and Francis 2005). In this study, we examine the economic role of the audit report by investigating how a qualified audit opinion (QAO, therefore) affects the subsequent contracting in the private debt market.

The value of accounting information in capital markets, and especially of earnings to equity investors, has been one of the central issues in accounting research since Ball and Brown (1968) and Beaver (1968). Lev (1989) summarizes the accumulated evidence and concludes that the usefulness of earnings to equity investors is very limited based on the low correlation between earnings and stock returns. Lev also conjectures that the low quality of earnings contributes to this low correlation. Given the unique role that auditors play in attesting to the quality of accounting information, there is surprisingly little evidence of the informativeness of the audit report to equity investors. The few exceptions examine the market reactions to first-time QAOs and find mixed evidence that the equity market reacts negatively, on average, to announcements of a QAO (Dodd et al. 1984; Loudder et al. 1992, Jones. 1999). The mixed evidence is partially attributable to the difficulty in employing a research design that can tease out the effects of audit opinions, earnings reports, and investors' expectations (Francis 2004).

In this paper we investigate the role of auditor opinions in private debt contracting. We direct our investigation into the debt market for several reasons. First, debt covenants and performance pricing provisions are often contracted on in terms of financial statement

numbers (Leftwich 1983; Dichev and Skinner 2002; Asquith et al. 2005), and the violation of these covenants is costly (Beneish and Press 1993, 1995; Nini et al. 2009; Stice 2012). However, the usefulness of accounting information in debt contracting is a function of the perceived quality of financial statement information. Bharath et al. (2008) provide evidence that a borrower's access to the private versus public debt market and its loan terms depend on the quality of the borrower's accounting information. Recently, Costello and Wittenberg-Moerman (2011) document that lenders trade-off between different monitoring mechanisms when financial reporting quality is in question. Specifically, they find that when borrowers disclose material internal control weaknesses (ICW, hereafter), lenders rely less on accounting and more on non-accounting-based terms in new debt issuances.[1] However, these studies do not examine the effect of accounting quality changes, and thus it is difficult to infer causality. Given the unique role of auditors in certifying the quality of financial statements, investigating the usefulness of audit opinions to lenders in loan contracting can shed further light on the relation between accounting quality and debt contracting.

Second, because debt holders have asymmetric payoffs on firm performance, their investments are more sensitive to negative news (i.e. qualified audit opinions) than equity investors' investments. Accordingly, we expect lenders to make significant changes in loan contract terms following a borrower's qualified audit opinion. Third, we choose to examine the role of audit opinions in private debt contracts rather than in public debt contracts because private debt holders have access to information that is unavailable to public debt holders. This biases against finding an incremental value of audit opinions in the private debt market.

[1] Kim et al. (2011) and Dhaliwal et al. (2011) also investigate the effect of ICW on loan contracting. There are several differences between these three studies. While Costello and Wittenberg-Moerman (2011) focus their analyses on ICW disclosed under Sarbanes Oxley Act (SOX) Section 302 (unaudited), Kim et al. (2011) and Dhaliwal et al. (2011) conduct their tests using ICW reported under SOX Section 404 (audited). Additionally, while Costello and Wittenberg-Moerman and Kim et al. conduct their analyses using private debt, Dhaliwal et al. conduct theirs using public debt. All three studies conclude that the disclosure of ICW leads to an increase in the cost of debt.

As a result, our investigation into how private debt holders rely on audit opinions offers unique insights into the economic value of auditing in debt contracting.

The question we address is whether qualified audit opinions of borrowing firms lead to changes in the debt contract design of subsequent debt issuances. As capital providers, lenders are eager to price protect their investment against the various agency costs that arise during the life span of the debt. Accounting information plays an important role in reducing these agency costs during the debt-contracting process (Smith and Warner 1979; Watts and Zimmerman 1978, 1986, 1990). The higher the quality of accounting information, the lower the cost of monitoring the borrower's behavior for lenders, and the lower the interest rate demanded by lenders. Therefore, we predict that lenders demand a higher interest rate on debt following a QAO of a borrower.

In debt contracting, the interest rate alone is not effective in protecting the lender against all agency costs during the life span of the debt. Typically debt contracts contain covenants that can be accounting-based such as debt-to-equity ceilings. Alternatively, the lender can put in place general covenants that restrict capital expenditure, asset sales and so on as ways to prevent asset substitution. An audit opinion is the final outcome of the auditor's assessment of the financial statement quality; and a QAO is an auditor's way of communicating with outside investors that the financial statement quality is lower than an unqualified opinion. Specifically, we predict that lenders choose to rely less on financial statement numbers after a qualified audit opinion and more on non-accounting monitoring mechanisms.[2]

In addition to interest rates and covenants, lenders can adjust other terms of the debt contract to protect their investments. If a QAO leads lenders to suspect that the financial

[2] Throughout the paper we use the term "qualified" to denote an audit report that is not unqualified (ie. qualified opinion, disclaimer of opinion, adverse opinion, and unqualified opinion with additive language).

statement are less reliable predictors of future financial positions of the borrower, we predict that lenders will reduce the size of the loan, shorten the maturity of the loan, and be more likely to demand collateral. Finally, because lenders frequently use performance pricing provisions to control agency costs in debt contracts (Asquith, et al. 2005) and many performance pricing provisions use financial statement ratios; we predict that lenders are less likely to use financial ratio-based performance pricing provisions in debt contracts if the borrower received a QAO.

We test our hypotheses using a comprehensive sample of firms with a QAO during the period from 1992 to 2009. We examine loan terms 1) during the QAO period, (from the first QAO until the first unqualified audit opinion is issued) 2) during the after-QAO period, (the three years after the QAO period) and 3) during all other periods (non-QAO period, hereafter). We find that the cost of debt issued after a QAO is higher than it was before the QAO. The interest spread (above LIBOR) of loans issued after a QAO but before a clean audit report is almost 18 basis points more than it was during the period prior to QAO, controlling for all other determinants of the interest rate. Additionally, the interest spread of loans issued within three years of the first clean audit report after a QAO is 8.6 basis points higher than loans before a QAO, indicating that the interest rate effects of a QAO persist even after a clean audit report. Consistent with our hypothesis, we find that lenders decrease the use of financial covenants and increase the use of general covenants after a QAO. Specifically, lenders decrease the use of financial covenants by 4.4% during the QAO period, and increase the use of general covenants by 2.6%.

In testing our hypotheses regarding other terms of debt contract, we find that lenders reduce loan size and increase the likelihood of requiring collateral, but we do not find any evidence that lenders shorten the maturity of the loan. Finally, we find that lenders reduce

the inclusion of financial ratio-based performance pricing provision in debt contracts. Specifically, lenders are less likely to include a performance pricing provision based on a financial ratio. Loan terms in the after-QAO period are also less favorable than the before QAO period, indicating that there are long-term reputation effects after a QAO. We view this as evidence that lenders regard a QAO as an event which decreases the reliability of the financial statements in debt contracting and therefore trade off accounting-based contract components in favor of components not as affected by the change in perceived financial reporting quality.[3]

This study contributes to the literature in several ways. First, we extend the prior literature that investigates the role of auditors in capital markets. Auditors play an important role in an economy by providing a third-party assessment of publically traded firms. This allows investors to make investment decisions more efficiently by not requiring them to investigate each company individually. While the importance of auditors is widely accepted, there is little empirical evidence that directly examines whether auditors increase the perceived credibility of financial statements (Healy and Palepu 2001). It is not clear how much information a QAO conveys that is not already known to the market (Dodd et al. 1984; Dopuch et al. 1986). We add to this literature by providing evidence that when auditors signal to the market that financial reporting quality is potentially low by issuing a qualified audit opinion, lenders drastically change the way that they use accounting information for debt contracting purposes, even after controlling for the information contained in the

[3] Additionally, we predicted that a QAO a would lead to an increase in information asymmetry between the lead arranger and other syndicate loan members and that this increase would lead to an increased pressure from syndicate members for the lead arranger to hold a higher proportion of the loan (Leland and Pyle 1977; Holmstrom and Tirole 1997; Ball, Vasvari, and Bushman 2008). The lead arranger of a syndicate role plays a large role in both performing the due diligence before a loan issuance as well as in monitoring the loan afterward. This places the lead arranger in the best position to understand the possible consequences of a QAO on a borrowing firm. We found no evidence consistent with these predictions.

financial statements and its quality. This is not an obvious result in the private debt market. Loan syndicate members have access to private information unavailable to other market participants. Our finding that lenders change their contract design choices after a QAO indicates that auditors may be providing valuable information to a segment of the capital markets previously unidentified.

Our paper also extends the findings of Pittman and Fortin (2004) who find that the reputation of an audit firm, defining big six audit firms as those with best reputations, reduces the cost of debt in a sample of young firms after IPO. However, our study differs from theirs in several key ways; we use audit opinions directly as indicators of financial statement quality, and our research design allows us to infer causality between accounting information quality and cost of debt. We find no significant difference between large (reputable) audit firms and small (less reputable) audit firms in the effect of a QAO on interest rate, the use of covenants, and on other terms of the debt contracts. In other words, conditional on a QAO being issued, we do not find a different economic impact of Big 4 versus non-Big 4 audit opinions on the contractual terms of private loans. As discussed later, this does not necessarily mean that our results contradict their findings since reputation may be conveyed through the differential willingness to issue QAOs between large versus small auditors. Furthermore, their sample of young firms is considerably different from our sample of firms.

Second, we add to the growing literature that examines the role of accounting, and specifically financial reporting quality, in debt contracting. Armstrong et al. (2010) call for further research exploring the effect of accounting quality on lenders' choice of monitoring mechanisms and the effects of accounting quality on borrowers' ability to access the debt

markets.[4] We view our study as adding to the body of knowledge in this area. Costello and Wittenberg-Moerman (2011) show that a disclosure of internal control weakness under SOX Section 302 leads lenders to tradeoff between accounting and non-accounting debt contracting mechanisms. We provide further evidence that lenders tradeoff different control mechanisms using a setting of qualified audit opinions as a proxy for low financial reporting quality. Like Costello and Wittenberg-Moerman (2011), we find that a QAO, as a proxy for low quality of the reported financial statements, leads lenders to charge a higher interest rate, use fewer financial covenants, more likely to require collateral, and are less likely to include accounting-based performance pricing provisions. However, unlike their study, we find evidence that lenders increase the use of general covenants as replacing financial covenants. This is likely arises from the fact that a QAO signals an *explicit deficiency* in financial statement quality as compared with a disclosure of internal control weakness.

Our study also contributes to the current debate about measures of financial statement quality. Since we include several indicators of accounting quality such as abnormal accruals and internal control weakness along with QAO in our final analysis, we find that the effects of a QAO are robust to controlling for these other indicators of accounting indicators. At the same time, we find that QAO does not subsume the effect of these other indicators on contract terms of the loan. This result suggests that abnormal accruals, internal control weaknesses, and QAOs capture different aspects of accounting quality and they do not subsume each other, at least in the context of private debt contracting.

In the next section we develop our hypotheses. We describe the sample selection procedures and variables used in this study in section III. Section IV presents the empirical

[4] In their review of 20 years of research in accounting, finance, and economics, Armstrong et al. (2010) were unable to locate any papers that examine whether attributes of firms' financial reports influence their ability to access the debt markets.

results and section V presents the results of additional analyses. A summary and conclusions are provided in section VI.

II. Background and Hypothesis Development

Financial statements are an important source of firm-specific information available to lenders at the contract date (Tirole 2007). Accounting numbers have been used extensively to predict the likelihood of borrower default (e.g., Beaver 1966; Altman 1968; Ohlson 1980). Research has shown that accounting measures can predict the losses that will be sustained by lenders at the time of borrower default (Varma and Cantor 2005; Acharya et al. 2007), and recent work has demonstrated that accounting numbers also possess significant ability to predict future loss given default at the debt issuance date (Amiram 2012).

We predict that a QAO will affect the use of accounting information in debt contracts through two distinct channels: ease of contracting and uncertainty. First, financial statements provide lenders information that can be easily used ex ante in debt contracting and ex post in debt monitoring. If lenders doubt the quality of financial statements then the cost of monitoring the borrower's behavior increases; and consequently, lenders demand a higher interest rate on the loan, all else equal (Jensen and Meckling 1976; Smith and Warner 1979). Francis et al. (2005) and Bharath et al. (2008) show empirically that firms with higher accounting quality have a lower cost of debt. Several recent studies (Costello and Wittenberg-Moerman 2011; Kim et al. 2011; Dhaliwal et al. 2011) use disclosed ICWs under the Sarbanes-Oxley Act as a proxy for low financial reporting quality and find that disclosed ICWs lead to an increase in the cost of debt.

Second, financial statement information decreases uncertainty about a borrower's creditworthiness. Borrower default is not the only risk that lenders face. Duffie and Lando

(2001) model information risk as separate from risk of default. Easley and O'Hara 2004 and Lambert et al. 2007 predict that information risk will affect the cost of capital. Debt covenants based on accounting numbers allow for a pre-contracted on transfer of control rights in the event of a debt covenant violation. Debt covenant violation is common and costly.[5] However, lender response to covenant violation varies widely and presumably depends on lenders' determination of borrower factors.[6] Additionally, Roberts and Sufi 2009 find that 90% of long-term debt contracts are renegotiated at least once before maturity. If lenders use borrowers' financial statements to reduce uncertainty and to facilitate decision making both before and after debt issuance, then a reduction of perceived financial statement reliability may increase uncertainty and information asymmetry between borrowers and lenders.

Our study examines the effect of a qualified opinion by an auditor on these two uses of financial statements in debt contracting by decreasing the perceived reliability of a borrower's accounting information. Auditors play a central role in conveying information about firms to the market by certifying that a client's accounting numbers accurately reflect the state of the firm under the relevant set of accounting rules. Leftwich 1983 finds that banks require audited financial statements from private borrowers that are not required by regulation to have audited financial statements. Mansi et al. 2004 find that auditor quality is

[5] Dichev and Skinner (2002) find that 30% of the loans in their sample are in violation of at least one covenant during the term of the loan. Beneish and Press (1995) find that announcements of violation are associated with a -3.52% return in the three-day period surrounding announcements of debt covenant violation, and Stice (2012) provides evidence that market participants react negatively to earnings announcements that indicate a high likelihood of covenant violation, even without formal disclosure of violation.

[6] Dichev and Skinner (2002) find that the most common lender response to covenant violation is to waive the violation or renegotiate the loan. Nini et al. (2009) find that covenant violations are associated with an increase in CEO turnover and corporate restructuring and a decrease in capital expenditures and debt usage.

negatively associated with the cost of debt of public firms, and Pittman and Fortin 2004 find that this benefit is especially pronounced for young firms.[7]

The ultimate output provided by an auditor is the auditor's report. The audit opinion is the only channel through which an auditor communicates her assessment on the quality of financial statements to outside investors. When auditors are able to give an unqualified opinion of a client's financial statements, rather than a QAO, market participants may be more likely to rely on the financial statements when making investing decisions. Choi and Jeter (1992) find that earnings response coefficients decrease significantly after the issuance of a qualified opinion indicating that equity investors react less to earnings announcements of firms with a QAO.

Recently, several studies have used weaknesses in internal controls disclosed under the Sarbanes-Oxley Act as a proxy for low financial reporting quality and found that ICWs lead to an increase in the cost of debt (Costello and Wittenberg-Moerman 2011; Kim et al. 2011; Dhaliwal et al. 2011). One advantage of focusing our study on qualified opinions is that we are able to examine the effects of financial reporting quality on debt contracting over a much longer time period than previous studies and beyond the context of the Sarbanes-Oxley Act of 2002.[8] Additionally, while several studies have examined the relation between accounting quality and the costs of equity and debt (see Francis et al. 2004; Bharath et al. 2008), these studies rely on models of accrual quality that are often criticized (Dechow et al. 2010). A QAO is a more direct proxy for low earnings quality because it allows for auditors

[7] Fortin and Pittman (2007) suggest that this benefit may exist only for publicly-traded firms; they find no evidence that private firms' cost of debt is affected by auditor quality. These studies use Big 6 audit firms as a proxy for high quality auditors.

[8] Our sample period begins in 1992 while Costello and Wittenberg-Moerman 2011 use a sample beginning in 2002; Kim et al. 2011 use a sample beginning in 2005; and Dhaliwal et al. 2011 use a sample beginning in 2004.

to use their private information about their clients and relies on auditors not wanting to jeopardize their valuable reputations (DeAngelo 1981).

We first formally test the effect of a QAO on loan spreads. Consistent with the preceding discussion, we predict that a QAO will affect loan pricing by decreasing the ability of lenders to use accounting for contracting purposes and by increasing uncertainty about borrower creditworthiness. If lenders view a QAO as an indication of low financial reporting quality they will be reluctant to use accounting numbers in debt contracts, specifically in financial covenants. Lenders will trade-off a decrease in the use of financial covenants with an increase in the interest spread (Jensen and Meckling 1976; Smith and Warner 1979). Additionally, if lenders view a QAO as conveying less reliable financial statement quality than an unqualified opinion, then a QAO will lead to a higher interest rate on the loan. Formally, we predict:

H1: A qualified audit opinion leads to an increase in loan spreads for borrowers.

Debt covenants are an important disciplining force in debt contracts. They provide a contractible way for lenders to monitor loans after issuance, and they are included in debt contracts to reduce lender risk by reducing managers' ability to extract rents from debt holders and by giving lenders control of the firm during bad economic states of the firm.[9] Debt holders are affected negatively by borrowers' economic losses, but they receive relatively little benefit from borrowers' economic gains, so lenders prefer to gain control of the borrowing firm as quickly as possible when their investment is at risk (see e.g., Aghion and Bolton 1992). Debt covenant inclusion is costly to borrowers (Core and Schrand 1999),

[9] Jensen and Meckling (1976) list several actions that debt covenants can help to prevent: unwarranted distributions to shareholders, issuance of higher priority debt claims, and investments in negative net present value projects for purposes of empire building and diversification.

but the *ex ante* commitment to turn over firm control to lenders during bad states generates more favorable contract terms for borrowers (Bradley and Roberts 2004).

Lenders face a choice between including financial covenants, based on accounting numbers, and general covenants, not dependent on accounting information. If lenders choose to include financial covenants then financial statements must be reliable to be useful for contracting purposes. Costello and Wittenberg-Moerman (2011) find that the disclosure of an ICW leads to a decrease in the use of financial covenants in debt contracts. They posit that lenders view financial statement information to be less valuable in contracting after disclosure of an ICW decreases the perceived reliability of financial statements.[10]

Additionally, lenders may choose to include general covenants that do not rely on accounting information. General covenants often specify events that will require the borrower to pay down the balance of their loan such as: periods of excess cash flow (as defined in the contract), asset sales, additional debt issuance, equity issuance, and insurance settlements. General covenants often dictate the conditions under which dividends may be paid to shareholders and the allowed amount. Additionally, a general covenant may specify the allowed uses of the borrowed funds. Lenders usually include both general and financial covenants in debt contracts. If lenders view a QAO as decreasing the value of including financial covenants they may compensate by increasing the number of general covenants. Alternatively, if financial and general covenants are independent in purpose, the optimal number (and type) of included general covenants may already be included and no change will

[10] If lenders view a QAO as increasing overall information uncertainty, they may react by increasing the number of financial covenants (Bradley and Roberts 2004). Kim et al. (2011) present evidence consistent with this prediction and find that firms that disclose an ICW have a higher number of financial covenants. Costello and Wittenberg-Moerman (2011) attribute these results to the research design choice of comparing ICW firms to non-ICW firms. We follow the approach of Costello and Wittenberg-Moerman and conduct our tests using only a sample of QAO firms. We discuss our research design and its implications in the next section.

be observed. Our second hypothesis relates to the use of both general and financial covenants. Presented in the alternative form, our second hypothesis is:

H2: A qualified audit opinion is associated with a decrease in the number of financial covenants or an increase in the number of general covenants contained in subsequent debt contracts.

To assess the total effect on contract design of a QAO, it is important to consider the many different contract components that lenders can choose from (Gigler et al. 2009). Up until this point we have only considered the use of spread and covenants in contract design. In reality, lenders have other options to consider when designing a firm-specific contract. We consider the effects of a QAO on three additional contracting options available to lenders: loan size, requiring collateral, and the length of the loan contract. We view a QAO as a disclosure event that reduces financial statement reliability, and we predict that lenders will be more likely to use these non-accounting contracting mechanisms after a QAO. Stated in the alternative form, we predict that:

H3: A qualified audit opinion is associated with decreases in the size of loans granted to borrowers, increases in the likelihood that lenders will require collateral from borrowers, and decreases the average length of maturity in subsequent debt contracts.

Our last formal hypothesis explores the use of financial accounting ratios in performance pricing provisions. Performance pricing provisions increase interest spreads when credit quality deteriorates and decrease spreads when credit quality improves. Asquith et al. (2005) find that performance pricing provisions are more likely to be included when prepayment is more likely or more costly and when moral hazard costs are higher. The inclusion of a performance pricing provision is associated with lower spreads in debt

contracts and they are usually based on financial ratios or credit ratings. Costello and Wittenberg-Moerman (2011) find that performance pricing provisions have a lower probability of being based on a financial ratio after an ICW. Consistent with lenders believing that a QAO indicates lower financial reporting quality, we predict that:

H4: A qualified audit opinion is associated with a decrease in the likelihood that a performance pricing provision is based on a financial ratio in subsequent debt contracts.

III. Sample and Research Design

Sample Selection

Our empirical strategy is to investigate whether lenders change the terms of debt contracts after a borrower receives a qualified opinion from their auditor. We focus our analysis on a sample of firms that received a QAO during our sample period. We separate firm observations in to three distinct categories: the period during which a firm receives a qualified opinion from its auditor, QAO period; the three years after a firm receives a qualified opinion from its auditor, after-QAO period; and all other firm year observations, non-QAO period.[11] The purpose of separating the QAO and non-QAO periods is obvious. We include the after-QAO period in an attempt to capture the lingering reputation effects that borrowers may experience after a QAO, despite receiving clean audit reports. Costello and Wittenberg-Moerman (2011) find that changes to the perceived quality of financial statements have a lingering effect on debt contract design. Consequently, we investigate the

[11] Note that the "non-QAO" period encompasses time periods potentially both before and after a firm receives a QAO. In untabulated robustness tests we confirm that our results are not dependent on this design choice. Results are robust to redefining the "non-QAO" period to only include observations before the QAO and omitting all other observations. Additionally, the choice of defining the "after-QAO" period as three years is necessarily ad hoc. Results are robust to redefining the "after-QAO" period as the two years and one year after a QAO.

effects of a QAO in the QAO and after-QAO periods in an attempt to determine whether reputation effects linger in debt contract design.

We obtain audit opinion data from COMPUSTAT and Audit Analytics and match these data with public firms in the Dealscan database provided by the Loan Pricing Corporation (LPC). The private debt contracts in the Dealscan database represent a large source of corporate funds for these publicly-traded companies. Sufi (2007) reports that approximately 90% of the 500 largest nonfinancial firms in COMPUSTAT obtained a loan through private channels during his sample period of 1994 to 2002 and that the market for these loans reached $1 trillion during this period. The value of private deals grew to over $1.5 trillion by 2005 (see Bharath et al. 2008) and to $1.69 trillion in 2007 (see Kim et al. 2011).

We eliminate firms without a QAO during our sample period of 1992 to 2009. We make this design choice following Costello and Wittenberg-Moerman (2011) and argue that conducting our analyses within a sample of QAO firms is a stronger design choice than including both QAO and non-QAO firms in our tests. We also require all sample firms to have at least one loan during the non-QAO period and one loan in either the QAO or after-QAO period to mitigate the concern that changes in sample over time drive our results. Table 1 presents our sample selection process. After the requirements mentioned above and after eliminating observations with missing data needed in our analyses, our final sample includes 11,205 loans for 1,663 borrowers.[12]

Descriptive Statistics

Table 2 Panel A reports descriptive statistics for the sample data, we define our variables in Appendix A. On average our sample firms are large, average assets of $2,703

[12] Syndicated loans often bundle multiple facilities in to one transaction. These different facilities have different contract terms but are syndicated as a single transaction. Consistent with other work in this area, we conduct our tests at the individual facility level (see Costello and Wittenberg-Moerman 2011).

million; profitable, average ROA (EBIDTA divided by total assets) of 0.12; and highly levered, average long-term debt to assets of .31. The loans in our sample have a mean spread above LIBOR of 212 basis points. This is slightly higher than the 199.6 average spread of loans included in the Dealscan database, providing some evidence that QAO firms are different than non-QAO firms. The average loan size is $287M and matures in an average of 47.75 months. Debt contracts include an average of 2.51 financial covenants and 5.35 general covenants. Most loans include a performance pricing provision (64.5%), require collateral (73.5%), and are a revolver (61%). The QAO period accounts for 36.1% of observations, 20.7% of observations fall in to the after-QAO category, and the remaining 43.2% of observations are non-QAO observations.

Table 2 Panel B provides a correlation matrix. Many of the contracting terms are significantly correlated. Spread is positively associated with the number of financial and general covenants in the univariate, and it is negatively related with including a performance pricing provision, requiring collateral, and the number of lenders included in the syndicate. This is consistent with lenders having many different mechanisms through which to design contracts (Melnik and Plaut 1986), not just through spread. We expect lenders to change the way they use accounting information in contract design when a change in financial statement reliability occurs.

Research Design

We predict that lenders will view a QAO as a decrease in the contracting reliability of financial statement information. To examine the effect of a QAO on contract design, we follow the approach of Costello and Wittenberg-Moerman (2011) and estimate the following model:

$$Contractual\ Term = \alpha + \beta_1\ QAO + \beta_2\ After\_QAO + \sum \beta_i\ (Control_i) \qquad (1)$$

where *QAO* is an indicator variable equal to one if a loan is issued during the QAO period and zero otherwise. *After_QAO* is an indicator variable equal to one if a loan is issued in the three year period after a QAO. *Contractual Term* is a variable representing the specific contracting mechanism that we investigate in each of our tests, and it includes interest spread, the number of financial covenants, the number of general covenants, whether or not a loan is secured, the maturity length of a loan, and whether or not a loan includes a performance pricing provision based on a financial ratio.[13]

We include a variety of control variables found to be important determinants of debt contracting terms in the previous literature. Firm size, profitability, and capital structure are associated with information asymmetries and the cost of debt (Bharath et al. 2007); longer maturity loans are associated with the probability of default (Demiroglu and James 2010); and the likelihood of inclusion of a performance pricing provision increases when adverse selection and moral hazard costs are higher (Asquith et al. 2005). We also control for whether the facility is an institutional loan, a revolver, requires collateral and the size of the loan and the number of syndicate members (Beatty et al. 2002; Sufi 2007; Costello and Wittenberg-Moerman 2011).

We also examine whether a long-term relationship between a borrower and lender can mitigate the effects of a QAO (Diamond 1984; Sufi 2007; Bharath et al. 2009; Costello and Wittenberg-Moerman 2011). We include indicator variables for whether any syndicate member has participated in a loan with the borrower in the previous five years (*Previous_Lender*) and whether the lead arranger was the lead arranger on a loan within the previous five years (*Previous_Lead_Arranger*). We include these indicator variables and

[13] In additional tests presented later in the paper, *Contractual Term* also represents the proportion of the loan held by the lead arranger, the presence in a loan contract of a performance covenant, and the proportion of financial covenants to total covenants.

interact them with our variables of interest, *QAO* and *After_QAO*. Additionally, we include an indicator variable for whether or not the borrower has a credit rating and interact it with our variables of interest.

IV. Empirical Results

Financial Reporting Quality and the Cost of Debt

Table 3 presents results from the interest spread OLS regression. We regress loan spread on *QAO*, *After_QAO*, and a variety of control variables. Our first hypothesis predicts that if lenders view a QAO as a signal of lower financial reporting quality then debt issued during the QAO period will have a higher interest rate. Additionally, if there is a long term reputation effect, then debt issued during the after-QAO period will have a higher spread as well. Table 3 presents results consistent with this hypothesis. In Column 1, the coefficient on *QAO* is positive and statistically significant; loans issued during the QAO period have a spread over LIBOR that is 17.90 basis points higher than loans issued during the non-QAO period. This represents an increase in the cost of debt of 8.4%. Furthermore, the coefficient on *After_QAO* is positive and statistically significant, and it indicates that loan issued during the after-QAO period have an average spread 8.59 basis points higher than loans issued during a non-QAO period. This provides evidence consistent with lenders viewing a QAO as an increase in uncertainty and increasing loan spreads in the QAO period accordingly. The fact that loans have a higher spread in the after-QAO period indicates that lenders view borrowers cautiously for up to three years after an auditor issues a clean opinion.

Many of the included control variables are statistically significant. Spreads are negatively associated with borrower profitability, firm size, loan size, the inclusion of a performance pricing provision, the number of lenders, and whether or not the loan is a

revolver. Spreads are positively associated with leverage, whether or not the loan is secured, and whether or not the loan is institutional. The variables of interest and the control variables capture much of the variation in the dependent variable; the r-squared is over 48%.

Columns 2 and 3 present results from our specifications that attempt to capture the effect of a long-term relationship between a borrower and lender. While *QAO* and *After_QAO* are still positive and statistically significant, the interaction terms between *QAO* and *After_QAO* with *Previous_Lender* are negative and significant at -15.96 and -12.41, respectively. This interaction effect is even stronger when the lead arranger (*Previous_Lead_Arranger*) of the syndicate was the lead arranger of a loan issued within the previous five years, at -20.61 and -17.11 respectively. These results indicate that lenders that have prior lending experience with borrowers face less uncertainty after a QAO and do not increase spreads to compensate as much as lenders without a relationship with a borrower.

Financial Reporting Quality and the Use of Debt Covenants

Table 4 presents results related to the inclusion of financial covenants in loan contracts. Hypothesis 2 predicts that lenders will be less willing to rely on financial covenants in debt contracts after the reliability of the financial statements is brought in to question a qualified opinion by an auditor. The first column in Table 4 provides evidence that the number of financial covenants included in a debt contract is lower in the QAO and after-QAO periods than the non-QAO period. The coefficients on *QAO* and *After_QAO* are -.11 and -.11 and are statistically significant. These decreases represent a decrease in the use of financial covenants of 4.2% and 4.5% respectively. H2 also predicts that lenders will be more likely to include general covenants. Column 4 provides evidence consistent with this hypothesis. The coefficient on *QAO* is .14 and statistically significant. This finding provides some evidence consistent with our prediction that when lenders are less willing to use

accounting in debt contracts, they will increase the non-accounting contracting mechanisms that they have at their disposal. Interestingly, the coefficient on *After_QAO* is positive .05 but insignificant. The long-term effects of a QAO do not seem to affect general covenants as severely as financial covenants.

Columns 2, 3, 5, and 6 investigate the effects of long-term lender relationships on the use of debt covenants after a QAO. There does not seem to be a strong effect on the use of financial covenants when a lender has had a previous relationship with a borrower. Overall, these results suggest that while a prior lending relationship with the borrower can reduce the uncertainty costs associated with a QAO, it does not greatly increase the willingness of lenders to use financial covenants for contracting purposes. On the other hand, for the general covenant results (Column 6), the prior lending relationship with the borrower by the lead arranger leads to significant decreases in the number of general covenants included in debt contracts.

Financial Reporting Quality and the Use of Additional Loan Components

Table 5 presents results of Hypothesis 3. H3 predicts that lenders will include more stringent non-accounting loan terms after a QAO to compensate for both an increase in uncertainty about the borrower's credit risk as well as the reduced efficiency of using financial statement information for contracting purposes. We investigate three non-accounting mechanisms that lenders can employ in debt contracts: loan size, requirement of collateral, and loan maturity. The results are reported in Table 5. In Column (1) of Table 5, we provide strong evidence that lenders decrease the loan amounts offered to borrowers after a QAO. The coefficients on *QAO* and *After_QAO* in Column 1 are -.06 and -.03 respectively and statistically significant in each specification of the model. This finding is consistent with the credit rationing literature (see ex. Jaffee and Russell 1976 and Stiglitz and Weiss 1981)

and provides evidence consistent with lenders reacting to an increase in uncertainty and a decrease of perceived financial statement quality by decreasing the amount of capital provided to borrowers. Economic theory on credit rationing (Stiglitz and Weiss 1981) would suggest that some firms will not obtain loans when a QAO increases information asymmetry and uncertainty. Our empirical results are based on firms that have obtained a loan in the event of a QAO. As a result, our estimate of the effect of QAO on debt terms underestimates the true cost of a QAO because borrowers are likely to pay higher costs of financing if they are denied a loan from lenders because of the QAO. We also find that the likelihood of requiring collateral in a loan contract increases significantly after a qualified opinion in both the QAO and after-QAO periods. Table 5 Column 4 indicates that the probability of requiring collateral increases during the QAO and after-QAO periods. The probability of requiring collateral increases by 7% and 3% during these respective periods and is statistically significant.

Our last test of H3 investigates loan maturity choices that lenders make at the contract inception date. If lenders believe that a QAO increases uncertainty they may shorten the length of loans issued after an auditor offers an opinion that is not unqualified. In each of the model specifications, Columns (7), (8) and (9), we find no evidence that this is the case. The coefficients of *QAO* and *After_QAO* in Table 5 Column 7 are indistinguishable from zero. Loan maturity length does not seem to be the tool that lenders use to deal with a decrease in a borrower's financial statement reliability. This result is similar to that reported in Costello and Wittenberg-Moerman (2011).

Financial Reporting Quality and the Structure of Performance Pricing Provisions

Table 6 presents the results of our last formal hypothesis. Hypothesis 4 predicts that lenders will be less willing to include performance pricing provisions that are based on a

financial ratio after a QAO. Performance pricing provisions can be based on financial ratios that use accounting numbers or on credit ratings provided by independent rating agencies. Credit rating agencies act as an additional source of information that is available to lenders and other market participants. We predict that a decrease in financial statement reliability will lead lenders to increase their use of credit ratings in performance pricing provisions. Table 6 presents results consistent with this prediction.

In Table 6 Column 1 *QAO* has a coefficient of -.16 which is statistically significant and indicates that lenders are 4% more likely to base a performance pricing provision on a credit rating in the QAO period. We find no evidence that the likelihood of basing a performance pricing provision on a credit rating increases during the after QAO period. Columns 2 and 3 present the performance pricing provision results after controlling for the relationship between a lender and a borrower. The coefficients on *QAO*Previous_Lender* and *QAO*Previous_Lead_Arranger* are -0.18 and -0.26 respectively and both are statistically significant. They suggest that the decreases in performance pricing provisions are greater if the lender has a prior lending relationship or if the lender has been a lead arranger of a loan in the last five years. As in the previous specification, there does not seem to be any effect during the after-QAO period. This provides some evidence that changes to performance pricing provisions do not last as long after a QAO as many of the other contractual mechanisms we have investigated.

V. Additional Analyses

The Incremental Impact of Auditor Opinion on Loan Terms after Controlling for Accrual Quality

Our study investigates the role that auditors play in providing information to the debt market about the usefulness of accounting information for debt contracting purposes. We provide compelling evidence that after a qualified opinion from an auditor lenders decrease their reliance on accounting numbers and increase their use of non-accounting contracting mechanisms. However, up until this point in our paper our tests have ignored another crucial output of the audit process, the financial statements themselves. It may be that lenders are able to infer low financial statement reliability when they observe the accounting numbers produced in the same period as the qualified opinion. If this is the case, then the audit opinion is not informing lenders directly; the financial statements themselves inform lenders that accounting numbers will be less useful for contracting purposes and lenders adjust loan terms accordingly.

Prior research in the earnings management literature has documented an association between various characteristics of accruals and earnings quality (Healy 1985; DeAngelo 1986; Jones 1991).[14] Bartov et al. 2001 provide evidence that accruals information can be used to predict qualified opinions from auditors. We attempt to determine if the earnings quality from a qualified audit period informs lenders about the financial statement reliability of a firm with a QAO. We focus on two measures of accruals quality employed in the literature: abnormal accruals (*Abnormal_Accruals*) as defined in Ashbaugh-Skaife et al. 2008 without controlling for the effects of conditional conservatism on accruals quality (Dechow et al. 1995; Kothari et al. 2005) and accruals noise (*Accruals_Noise*) follows Dechow and

[14] See Dechow et al. 2010 for a review of the earnings quality literature.

Dichev 2002 and Kothari et al. 2005. We add these measures to our original specifications for interest spread and the number of financial covenants and present the results in Table 7.

Table 7 Panel A provides a correlation matrix of *Abnormal_Accruals*, *Accruals_Noise*, *QAO*, interest spread, and the number of financial covenants. Our measures of accruals quality are decreasing in quality; higher values imply lower accruals quality. Both measures are positively correlated with *QAO*, though only the correlation with *Accruals_Noise* is statistically significant. Panel B presents the interest spread results from H1 with the addition of the accruals quality variables. The coefficient on *Abnormal_Accruals* is not statistically significant, but the coefficient on *Accruals_Noise* is positive and statistically significant. Importantly, the coefficient on *QAO* remains positive and statistically significant across all specifications. Panel C presents results for the use of financial covenants in debt contracts after controlling for accruals quality. The coefficients on *Abnormal_Accruals* and *Accruals_Noise* are both positive and significant in these specifications. The coefficient on *QAO* remains negative and is significant in the *Abnormal_Accruals* specification but not the *Accruals_Noise* specification. Overall, Table 7 provides evidence that lenders are not changing their use of accounting numbers in debt contracts based solely on the information contained in the financial statements. Lenders appear to be less willing to use accounting information in debt contracts after an auditor gives a QAO, even after controlling for the information in the financial statements.

Financial Reporting Quality and Internal Control Weaknesses

Our study has been partly motivated by recent work investigating the effect that an ICW, as a proxy for low financial reporting reliability, can have on the use of accounting in debt contracting (Costello and Wittenberg-Moerman 2011; Kim et al. 2011; Dhaliwal et al. 2011). Our primary analysis similarly documents that a QAO decreases the use of

accounting and changes the use of non-accounting information in subsequently issued debt contracts. A disclosed ICW is more likely to result in a QAO, but not all QAOs are caused by an ICW. In our sample, 10.4% of our QAO observations disclose an ICW. In Table 8 we include the disclosure of a material weakness in internal controls in our interest spread and financial covenant specifications to determine whether or not the QAO effect we document is incremental to the ICW effect previously presented in the literature.

Firms were not required to report an ICW until 2004. To accurately assess the incremental effect of an ICW on our sample, we limit our sample to firms that disclose an ICW or a QAO during the period 2004 to 2009. Table 8 Panel A presents a correlation matrix of *QAO*, interest spread, the number of financial covenants and an indicator variable for a disclosed weakness of internal controls (*ICW*). While QAO and ICW are positively correlated, the correlation is only .032. Panel B presents our interest spread specification and includes an indicator variable for whether or not an ICW was disclosed. Consistent with the previous literature, the coefficient on ICW is positive and significant across all specifications. Our variable of interest, QAO, remains positive and significant. Panel C investigates the effect of a QAO on the use of financial covenants in debt contracts incremental to an ICW. The coefficient on ICW is not statistically significant and QAO remains negative and significant across all specifications. Overall, Table 8 provides evidence that a QAO informs lenders about the usefulness of accounting in debt contracting incremental to a disclosure of a weakness in internal controls.

Until now we have considered the effects on debt contracting of qualified opinions and disclosed weaknesses in internal controls. Additionally, auditors may disclose their doubt that a firm will remain a going concern. The issuance of a going concern opinion is rare, serious, and associated with an increased likelihood of future financial failure (Campbell

and Mutchler 1988; Chen and Church 1996). Costello and Wittenberg-Moerman (2011) and Kim et al. (2011) investigate the impact of the seriousness of an ICW on the loan term effect that document. In general, they document larger effects of an ICW in loan contracting for more serious ICWs.[15] In our sample of QAO observations, 125 also disclosed a going concern opinion. In untabulated results we interact a going concern indicator variable with QAO in our main specifications. The coefficient on this interaction is statistically significant in the predicted direction for both the interest spread and financial covenant specifications and indicates that a going concern opinion exacerbates the QAO effect previously documented.

The Impact of Financial Reporting Quality on the use of Performance Covenants

We also investigate whether lenders perceive accounting reliability to vary across different financial covenant types. Christensen and Nikolaev (2012) explore the monitoring roles of two different types of financial covenants: capital covenants and performance covenants. Building on contract theory (Aghion and Bolton 1992), they argue that capital covenants reduce agency problems by aligning lender and shareholder interests and that performance covenants serve as tripwires that transfer control rights when their investment is at risk. Capital covenants are balance-sheet-based and require borrowers to keep sufficient capital inside the firm; performance covenants are income-statement-based and employ accounting numbers as timely measures of borrowers' economic performance.

Prior research has shown that when financial reporting quality is in question, income statement items, specifically earnings, are most likely to be the primary focus of manager

[15] Based on Doyle et al. (2007) these studies define an ICW as "serious" if it is a company-level material weakness, as opposed to an account-level material weakness.

manipulation (Barton and Simko 2002).[16] We predict that the perceived contracting efficiency of capital and performance covenants will change when a QAO reduces financial statement reliability. In previous tests we have documented that the use of financial covenants decreases after a QAO; we predict that this effect will be exacerbated for performance covenants, those covenants that may be most susceptible to targeted manipulation. In untabulated tests we find evidence that the likelihood of including a performance covenant in a debt contract decreases following a QAO, even after controlling for the use of capital covenants. This finding is consistent with the differing monitoring roles of capital and performance covenants and suggests that while lenders decrease the overall use of financial covenants following a QAO, they also view the relative benefits of capital and performance covenants to change as well.

The Impact of Financial Reporting Quality on the Lead Arranger

Ball et al. (2008) provide evidence that accounting information can play a significant role in affecting the relationship between lead arrangers and other syndicate loan members. Lead arrangers earn substantial fees for performing due diligence before and for monitoring after a loan is issued. This arrangement creates an information asymmetry between lead arrangers and other syndicate members who do not have the same access to private information. As information asymmetry increases, so does the demand of syndicate members for lead arrangers to hold a higher proportion of the debt. Ball et al. (2008) predict and find that when the debt-contracting value of accounting is low that information asymmetry will be higher and lead arrangers will hold a higher proportion of the loan. We investigate whether a QAO leads to an increase in information asymmetry between lead arrangers and other

[16] While the balance sheet reflects the effect of income statement item manipulation through net assets, we view managers manipulating earnings as attempting to primarily change the accounting outcome of income statement items, not the balance sheet items that are also affected.

syndicate members and therefore and increase in the proportion of the loan held by the lead arranger. In untabulated results we do not find any evidence that a QAO changes the proportion of a loan held by the lead arranger, regardless of that lead arranger's previous relationship with the borrower.

The Effect of Big Audit versus Small Audit Firms

Prior studies find that large auditors (Big 4) have greater reputation assets than small auditors, and therefore have higher incentives to provide a high audit quality. Large auditors are used as a proxy for audit quality (Pittman and Fortin 2004). We investigate whether a QAO from a large audit firm causes a greater impact on the contractual terms of the subsequent debt contracts than a QAO from a small audit firm. Our results (untabulated) suggest no significant difference on any of the debt contract terms we have examined. Therefore, conditional on a QAO being issued, we do not find any significant difference in the effects on contracts terms between large and small auditors. This does not necessarily contradict the conclusions drawn in prior studies that big audit firms have higher audit quality because the propensity to issue a QAO may be different across large and small auditors or there may be endogeneity in the match between auditor size and client quality.

For our sample of 11,205 observations, 93.8% of the total observations are audited by the big auditors. The propensity to issue a QAO for the big auditors is 36.5%, and is 30.1% for small auditors. This result, while providing neither necessary nor sufficient evidence, is consistent with big auditors yielding less to client pressure and providing higher audit quality. Furthermore, Pittman and Fortin (2004) focus on a sample of recent IPO firms for which the signaling value of hiring a big auditor is likely to be higher than for our sample of firms that are relatively large and mature.

VI. Summary and Conclusions

In this paper we empirically investigate the effect of qualified audit opinions on private debt contracts using a comprehensive sample of QAOs from 1992 to 2009. Consistent with the monitoring role of audit opinions on accounting quality, we find that a qualified audit opinion is associated with an average increase of 18 basis points in the interest rate of loan facilities issued within the same year. We find that this effect persists for at least three years following a restored clean opinion with an average increase of 8 basis points in the interest rate for these loans. Furthermore, we find evidence that lenders replace financial covenants with non-financial covenants following a qualified audit opinion of the borrower's financial statements.

We also find a qualified audit opinion is associated with a decrease in loan size and an increase in the likelihood of requirement of collateral from a borrower, but we find no evidence that a qualified audit opinion is associated with a change in the length of loan maturity. Finally, we find that a qualified audit opinion is associated with a decreased use of performance pricing provisions in debt contracts that are based on financial ratios. A variety of additional tests demonstrate that the effects of a qualified audit opinion on contractual terms are robust to controlling for other indicators of accounting quality such as abnormal accruals, volatility of accounting accruals and disclosure of an internal control weakness.

In contrast to the mixed evidence of stock market reactions to audit opinions, we find a strong and economically significant response of debt contracting to qualified audit opinions. These results are not obvious given that private lenders have access to private information unavailable to most market participants and suggest that auditors play a unique role in debt contracting through monitoring borrowers' accounting quality. Our research contributes to our understanding of the economic value of auditing in an important market that has, up until

now, received little attention. The strong results from our investigation point to additional research in this area. As an example, future research can extend the investigation into whether and how a QAO affects a borrower's ability to access to the public versus private debt market.

Appendix A: Variable Definitions

Auditor Opinion Variables

QAO	An indicator variable equal to 1 if the firm received an opinion from the auditor other than unqualified in the current year, and 0 otherwise.
After_QAO	An indicator variable equal to 1 if the firm had a QAO equal to 1 in the previous three years, and 0 otherwise.
Going concern	An indicator variable equal to 1 if the firm received a going concern opinion from its auditor in the current year, and 0 otherwise.
ICW	An indicator variable equal to 1 if the firm's auditor concludes internal controls over financial reporting are not effective under SOX 404 in the current year, and 0 otherwise.

Borrower-Specific Variables

Leverage	Long-term debt divided by total assets, estimated in the year prior to entering into a loan contract.
Profitability	EBIDTA divided by total assets, estimated in the year prior to entering into a loan contract.
Size	The natural log of total assets, estimated in the year prior to entering into a loan contract.

Loan-Specific Variables

Previous_Lender	An indicator variable equal to 1 if at least one of the loan's lenders had been a lender of the borrower's in the preceding five years, and 0 otherwise.
Previous_Lead_Arranger	An indicator variable equal to 1 if at least one of the loan's lead arrangers had been a lead arranger of the borrower's in the preceding five years, and 0 otherwise.
Financial Covenants	The number of financial covenants included in the loan agreement.
General Covenants	The number of general covenants included in the loan agreement.
Institutional Investor	An indicator variable equal to 1 if the loan's type is term loan B, C, or D (institutional term loans), and 0 otherwise.
Interest Rate	The interest rate is based on the All-in-Drawn-Spread measure reported by DealScan, and it is equal to the number of basis points over LIBOR.
Loan Size	Amount borrowed in millions of dollars.
Maturity	The number of months between the facility's issue date and the date when the loan matures.
Number of Lenders	Number of participants in the loan syndicate.
PP Ratio	An indicator variable equal to 1 if the loan contract has a performance pricing provision based on an accounting ratio; it is 0 to zero if it has a performance pricing provision based on a
PP Indicator	An indicator variable that equals 1 if the loan contract includes performance pricing provisions, and 0 otherwise.
Revolver	An indicator variable equal to 1 if the loan's type is revolver, and 0 otherwise.
Secured	An indicator variable equal to 1 if the loan is backed by collateral, and 0 otherwise.

Table 1: Sample Selection

Filters	Facilities	Firms
All DealScan loans	105,273	14,830
Exclude private firms	73,640	10,362
Exclude facilities with missing data[1]	22,976	5,656
Matched before and after sample [2]	11,237	1,663
Restrict sample to loans issued from 1992 to 2009[3]	11,205	1,663

Table 1 presents our sample selection process.

1. We require firms to have nonmissing DealScan and Compustat data for each of our loan- and firm-level control variables.

2. We require that a firm has at least one facility in the non-QAO period and at least one facility in the QAO or After-QAO period.

3. The sample period begins in 1988 with the changes made to the issuing of audit opinions, but we drop the observations before 1992 due to a very limited sample size in those years.

Table 2: Descriptive Statistics

Panel A: Loan Characteristics

Loan Characteristic	*Number of Observations*	*Mean*	*Std Dev*	*25th Pctl*	*Median*	*75th Pctl*
	N = 11,205					
Previous_Lender		0.67	0.47	0.00	1.00	1.00
Previous_Lead_Arranger		0.44	0.50	0.00	0.00	1.00
Number of Financial Covenants		2.51	1.48	2.00	3.00	4.00
Number of General Covenants		5.35	2.88	3.00	5.00	8.00
Institutional Investor		0.11	0.31	0.00	0.00	0.00
Interest Spread (in bps)		212.02	139.90	112.50	200.00	275.00
Loan Size (in millions)		286.58	753.56	40.00	118.75	300.00
Maturity (in months)		47.75	24.06	33.00	50.00	60.00
Number of Lenders		8.84	9.58	2.00	6.00	12.00
PP Indicator		0.65	0.48	0.00	1.00	1.00
PP Ratio		0.67	0.47	0.00	1.00	1.00
Revolver		0.61	0.49	0.00	1.00	1.00
Secured		0.74	0.44	0.00	1.00	1.00

Panel B: Sample Characteristics

Variable	*Number of Observations*	*Mean*	*Std Dev*	*25th Pctl*	*Median*	*75th Pctl*
	N = 11,205					
Firm Size		6.45	1.70	5.27	6.43	7.57
Profitability		0.13	0.09	0.08	0.12	0.17
Leverage		0.31	0.25	0.11	0.27	0.44
After_QAO		0.21	0.41	0.00	0.00	0.00
QAO		0.36	0.48	0.00	0.00	1.00

This table presents the descriptive statistics for the total sample. See the appendix for the variable definition.

We have three periods: QAO, After-QAO, and non-QAO.
1. *QAO* is equal to 1 when the firm receives a qualified opinion, and 0 otherwise.
2. *After_QAO* is equal to one three years after a QAO, and 0 otherwise.
3. Non-QAO periods occur when both *QAO* and *After_QAO* are equal to 0.

Panel C: Correlation Matrix

	Interest rate	*# of FinCov*	*# of GenCov*	*#Lenders*	*Loan Size*	*Maturity*	*PP Ind.*	*Secured*	*Prev_Lender*	*Prev_Lead*	*Inst. Inv.*	*Revolver*	*QAO*
Number of Financial Covenants	**0.16**												
Number of General Covenants	**0.25**	**0.39**											
Number Lenders	**-0.24**	**-0.05**	**0.11**										
Loan Size (in millions)	**-0.17**	**-0.14**	**0.00**	**0.30**									
Maturity (in months)	**-0.01**	**0.12**	**0.34**	**0.17**	**0.02**								
PP Indicator	**-0.36**	**0.16**	**0.17**	**0.18**	**0.08**	**0.11**							
Secured	**0.50**	**0.23**	**0.35**	**-0.20**	**-0.20**	**0.17**	**-0.19**						
Previous_Lender	**-0.18**	**0.00**	**0.14**	**0.32**	**0.15**	**0.10**	**0.16**	**-0.13**					
Previous_Lead_Arranger	**-0.12**	**-0.02**	**0.06**	**0.21**	**0.07**	**0.06**	**0.08**	**-0.08**	**0.62**				
Institutional Investor	**0.25**	**0.15**	**0.33**	**0.06**	**0.04**	**0.34**	**-0.20**	**0.20**	**0.06**	**0.05**			
Revolver	**-0.21**	**-0.04**	**-0.19**	**-0.07**	**-0.05**	**-0.06**	**0.19**	**-0.05**	**-0.03**	**-0.02**	**-0.44**		
QAO	0.06	-0.10	0.07	0.04	0.08	0.03	-0.03	-0.01	0.11	0.08	0.04	0.00	
After_QAO	-0.06	-0.03	0.00	0.03	0.00	0.05	0.02	-0.01	0.02	0.02	0.00	0.02	-0.39

This table presents the Pearson correlation matrix of selected variables. The correlations in bold are significant at the 5% level. All variables are defined in the appendix.

Table 3: Interest Rate as a Function of Financial Reporting Reliability

	(1)	(2)	(3)
Variables	**Interest Rate**	**Interest Rate**	**Interest Rate**
QAO	17.90***	25.12***	27.00***
	(3.869)	(4.657)	(4.838)
After_QAO	8.59**	13.65***	15.51***
	(3.439)	(4.245)	(4.515)
Previous_Lender		-2.52	
		(3.184)	
*QAO*Previous_Lender*		-15.96***	
		(4.567)	
*After_QAO*Previous_Lender*		-12.40**	
		(4.930)	
Previous_Lead_Arranger			3.68
			(3.293)
*QAO*Previous_Lead_Arranger*			-20.61***
			(5.350)
*After_QAO*Previous_Lead_Arranger*			-17.11***
			(5.786)
InstitutionalInvestor	47.63***	48.18***	48.08***
	(5.819)	(5.809)	(5.818)
Revolver	-28.08***	-27.90***	-27.85***
	(2.811)	(2.813)	(2.810)
Financial Covenants	1.65	1.87	1.76
	(1.228)	(1.226)	(1.223)
Loan Size	-11.22***	-10.98***	-11.15***
	(1.470)	(1.459)	(1.466)
maturity	-0.07	-0.08	-0.08
	(0.073)	(0.073)	(0.073)
Number Lenders	-0.37**	-0.30*	-0.31*
	(0.171)	(0.171)	(0.171)
PP Indicator	-52.95***	-52.55***	-52.71***
	(3.725)	(3.702)	(3.717)
Secured	93.13***	92.95***	92.90***
	(3.155)	(3.142)	(3.141)
Firm Size	-11.11***	-10.70***	-10.85***
	(1.490)	(1.498)	(1.492)
Leverage	71.28***	72.05***	71.60***
	(6.650)	(6.621)	(6.606)
Profitability	-216.22***	-214.78***	-215.20***
	(17.586)	(17.633)	(17.543)
Constant	431.58***	425.82***	426.49***
	(24.707)	(24.660)	(24.746)
Year dummy	Yes	Yes	Yes
Observations	11,205	11,205	11,205
Adj. R-squared	0.48	0.49	0.49

Table 3 presents the results from the estimation of the following interest rate model:

$$Interest\ Rate = \alpha + \beta_1\ QAO + \beta_2\ After\_QAO + \beta_3\ Institutional\ Investor + \beta_4\ Revolver + \beta_5\ Financial\ Covenants + \beta_6\ Loan\ Size + \beta_7\ Maturity + \beta_8\ Number\ Lenders + \beta_9\ PP\ Indicator + \beta_{10}\ Secured + \beta_{11}\ Firm\ Size + \beta_{12}\ Leverage + \beta_{13}\ Profitability + \varepsilon$$

We regress the interest rate on *QAO*, *After_QAO,* loan- and firm-specific control variables in Column 1. We include a connected lender indicator and interact it with *QAO* and *After_QAO* to test whether the impact of financial reporting quality on the interest rate is mitigated if the loan is issued by a relationship lender in Column 2. We include a connected lead lender indicator and interact it with *QAO* and *After_QAO* to test whether the impact of financial reporting quality on the interest rate is mitigated if the loan is issued by a relationship lead lender in Column 3. Firm-specific financial variables are winsorized at 0.01 level.

Regressions include year fixed effects and standard errors are heteroskedasticity robust, clustered at the firm level. *P*-values are reported in parentheses. ∗∗∗, ∗∗, ∗ denote significance at the 1%, 5%, and 10% levels, respectively. See appendix for the variable definition.

Table 4: Financial Covenants as a Function of Financial Reporting Reliability

Variables	(1) Financial Covenants	(2) Financial Covenants	(3) Financial Covenants	(4) General Covenants	(5) General Covenants	(6) General Covenants
QAO	-0.11**	-0.14**	-0.10*	0.14*	0.19*	0.24**
	(0.048)	(0.053)	(0.056)	(0.084)	(0.100)	(0.107)
After_QAO	-0.11**	-0.08	-0.05	0.05	0.23**	0.28***
	(0.050)	(0.058)	(0.060)	(0.084)	(0.098)	(0.104)
Previous_Lender		0.25***			0.46***	
		(0.044)			(0.077)	
*QAO*Previous_Lender*		0.04			-0.16	
		(0.053)			(0.106)	
*After_QAO*Previous_Lender*		-0.08			-0.45***	
		(0.069)			(0.128)	
Previous_Lead_Arranger			0.19***			0.32***
			(0.053)			(0.089)
*QAO*Previous_Lead_Arranger*			-0.04			-0.27**
			(0.071)			(0.134)
*After_QAO*Previous_Lead_Arranger*			-0.15*			-0.54***
			(0.083)			(0.147)
InstitutionalInvestor	0.45***	0.44***	0.44***	0.92***	0.91***	0.91***
	(0.051)	(0.051)	(0.051)	(0.098)	(0.098)	(0.098)
Revolver	0.01	0.01	0.01	-0.59***	-0.58***	-0.59***
	(0.028)	(0.028)	(0.028)	(0.050)	(0.049)	(0.050)
Interest rate	0.24	0.27	0.26	3.90***	3.90***	3.87***
	(0.181)	(0.180)	(0.180)	(0.317)	(0.317)	(0.318)
Secured	0.44***	0.43***	0.44***	2.00***	1.99***	2.00***
	(0.047)	(0.047)	(0.047)	(0.080)	(0.079)	(0.080)
Loan Size	-0.02	-0.03*	-0.03	0.41***	0.38***	0.40***
	(0.020)	(0.020)	(0.020)	(0.035)	(0.035)	(0.036)
Maturity	0.01***	0.01***	0.01***	0.02***	0.02***	0.02***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Number of Lenders	0.01***	0.01***	0.01***	0.00	0.00	0.00
	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)
PP Indicator	0.46***	0.45***	0.46***	1.19***	1.17***	1.19***
	(0.043)	(0.043)	(0.043)	(0.079)	(0.079)	(0.079)
Firm Size	-0.19***	-0.20***	-0.19***	-0.01	-0.03	-0.01
	(0.021)	(0.021)	(0.021)	(0.036)	(0.036)	(0.036)
Leverage	0.32***	0.29***	0.30***	0.98***	0.94***	0.96***
	(0.088)	(0.087)	(0.087)	(0.165)	(0.163)	(0.165)
Profitability	1.16***	1.11***	1.16***	2.37***	2.28***	2.37***
	(0.225)	(0.224)	(0.224)	(0.387)	(0.387)	(0.388)
Constant	0.480	0.61**	0.470	-9.34***	-9.16***	-9.40***
	-0.307	-0.308	-0.308	-0.577	-0.58	-0.577
Year dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,205	11,205	11,205	11,205	11,205	11,205
Adj. R-squared	0.32	0.32	0.32	0.44	0.45	0.44

Table 4 presents the results from the estimation of the following financial covenant model:

$$Financial\ Covenants = \alpha + \beta_1\ QAO + \beta_2\ After\_QAO + \beta_3\ Institutional\ Investor + \beta_4\ Revolver + \beta_5\ Interest\ Rate + \beta_6\ Secured + \beta_7\ Loan\ Size + \beta_8\ Maturity + \beta_9\ Number\ Lenders + \beta_{10}\ PP\ Indicator + \beta_{11}\ Firm\ Size + \beta_{12}\ Leverage + \beta_{13}\ Profitability + \varepsilon$$

We regress the number of financial covenants on *QAO*, *After_QAO*, loan- and firm-specific control variables in Column 1. We include a connected lender indicator and interact it with *QAO* and *After_QAO* in Column 2. In Column 3 and 4, we use Perfinance as the dependent variable which is defined as the number of financial covenants divided by the total number of the covenants. Firm-specific financial variables are winsorized at 0.01 level.

$$General\ Covenants == \alpha + \beta_1\ QAO + \beta_2\ After\_QAO + \beta_3\ Institutional\ Investor + \beta_4\ Revolver + \beta_5\ Interest\ Rate + \beta_6\ Secured + \beta_7\ Loan\ Size + \beta_8\ Maturity + \beta_9\ Number\ Lenders + \beta_{10}\ PP\ Indicator + \beta_{11}\ Firm\ Size + \beta_{12}\ Leverage + \beta_{13}\ Profitability + \varepsilon$$

We regress the number of general covenants on *QAO*, *After_QAO*, loan- and firm-specific control variables in Column 4. We include a connected lender indicator and interact it with *QAO* and *After_QAO* in Column 5. We include a connected lead lender indicator and interact it with *QAO* and *After_QAO* in Column 6.

Regressions include year fixed effects and standard errors are heteroskedasticity robust, clustered at the firm level. *P*-values are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See appendix for the variable definition.

Table 5: Financial Reporting Reliability and Other Loan Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	**Loan Size**	**Loan Size**	**Loan Size**	**Secured**	**Secured**	**Secured**	**Log_Maturity**	**Log_Maturity**	**Log_Maturity**
QAO	-0.06***	-0.06***	-0.06***	0.20***	0.26***	0.27***	0.01	0.02	0.01
	(0.008)	(0.010)	(0.010)	(0.057)	(0.067)	(0.073)	(0.019)	(0.022)	(0.023)
After_QAO	-0.03***	-0.03**	-0.03***	0.12**	0.09	0.10	0.00	0.00	-0.01
	(0.010)	(0.011)	(0.012)	(0.058)	(0.069)	(0.074)	(0.020)	(0.024)	(0.025)
Previous_Lender		-0.02***			0.03			-0.05***	
		(0.008)			(0.054)			(0.018)	
*QAO*Previous_Lender*		0.00			-0.12*			-0.03	
		(0.008)			(0.068)			(0.022)	
*After_QAO*Previous_Lender*		-0.01			0.05			0.01	
		(0.013)			(0.082)			(0.029)	
Previous_Lead_Arranger			-0.02**			0.01			-0.06***
			(0.009)			(0.066)			(0.021)
*QAO*Previous_Lead_Arranger*			0.01			-0.13			0.01
			(0.012)			(0.092)			(0.029)
*After_QAO*Previous_Lead_Arranger*			0			0.05			0.04
			(0.016)			(0.103)			(0.035)
InstitutionalInvestor	0.05***	0.05***	0.05***	1.39***	1.39***	1.39***	0.61***	0.61***	0.61***
	(0.011)	(0.011)	(0.011)	(0.134)	(0.134)	(0.133)	(0.026)	(0.026)	(0.026)
Revolver	0.09***	0.09***	0.09***	-0.01	-0.01	-0.01	0.21***	0.21***	0.21***
	(0.006)	(0.006)	(0.006)	(0.036)	(0.036)	(0.036)	(0.023)	(0.023)	(0.023)
Loan Size				-0.15***	-0.15***	-0.15***	0.08***	0.08***	0.08***
				(0.027)	(0.027)	(0.027)	(0.009)	(0.009)	(0.009)
Maturity	1.12***	1.11***	1.11***	0.01***	0.01***	0.01***			
	(0.168)	(0.168)	(0.168)	(0.001)	(0.001)	(0.001)			
Number of Lenders	-0.46	-0.13	0.27	0.01**	0.01**	0.01**	0.01***	0.01***	0.01***
	(0.337)	(0.344)	(0.339)	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)
Firm Size				-0.40***	-0.40***	-0.40***	-0.05***	-0.05***	-0.05***
				(0.027)	(0.027)	(0.027)	(0.009)	(0.009)	(0.009)
Leverage	-0.07***	-0.07***	-0.07***	1.54***	1.54***	1.54***	0.32***	0.33***	0.33***
	(0.017)	(0.017)	(0.017)	(0.134)	(0.135)	(0.134)	(0.034)	(0.034)	(0.034)

Profitability	0.35***	0.36***	0.35***	-3.23***	-3.24***	-3.23***	0.45***	0.46***	0.45***
	(0.056)	(0.056)	(0.056)	(0.326)	(0.327)	(0.326)	(0.098)	(0.098)	(0.097)
Interest rate	0.08***	0.07**	0.08***				-0.02	-0.03	-0.03
	(0.028)	(0.028)	(0.028)				(0.083)	(0.083)	(0.083)
Secured	0.07***	0.07***	0.07***				0.23***	0.23***	0.23***
	(0.008)	(0.008)	(0.008)				(0.020)	(0.020)	(0.020)
PP_Indicator	0.03***	0.04***	0.04***				0.25***	0.25***	0.25***
	(0.008)	(0.008)	(0.008)				(0.019)	(0.019)	(0.019)
Number of Financial Covenants	0.01**	0.01**	0.01**				0.06***	0.06***	0.06***
	(0.003)	(0.003)	(0.003)				(0.007)	(0.007)	(0.007)
Constant	0.06**	0.08***	0.07***	5.39***	5.40***	5.38***	2.25***	2.22***	2.25***
	(0.027)	(0.027)	(0.027)	-0.447	-0.45	-0.447	-0.163	-0.164	-0.163
Year dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,205	11,205	11,205	11,205	11,205	11,205	11,205	11,205	11,205
Adj. R-squared	0.14	0.14	0.14	0.30	0.30	0.30	0.27	0.27	0.27

The first three columns present the results from the estimation of the following loan size model:

$$\textit{Loan Size (scaled by assets)} = \alpha + \beta_1\, \textit{QAO} + \beta_2\, \textit{After\_QAO} + \beta_3\, \textit{Institutional Investor} + \beta_4\, \textit{Revolver} + \beta_5\, \textit{Loan Size} + \beta_6\, \textit{Maturity} + \beta_7\, \textit{Number Lenders} + \beta_8\, \textit{Firm Size} + \beta_9\, \textit{Leverage} + \beta_{10}\, \textit{Profitability} + \varepsilon$$

We estimate the probability that the lenders require a loan to be secured in Column 1. The dependent variable equals one if the loan is secured, zero otherwise. We include a connected lender indicator in Column 2 and a connected lead lender indicator in Column 3.

The middle three columns present the results from the estimation of the following general covenant model:

$$\textit{P(Secured=1)} = \alpha + \beta_1\, \textit{QAO} + \beta_2\, \textit{After\_QAO} + \beta_3\, \textit{Institutional Investor} + \beta_4\, \textit{Revolver} + \beta_5\, \textit{Loan Size} + \beta_6\, \textit{Maturity} + \beta_7\, \textit{Number Lenders} + \beta_8\, \textit{Firm Size} + \beta_9\, \textit{Leverage} + \beta_{10}\, \textit{Profitability} + \varepsilon$$

We estimate the probability that the lenders require a loan to be secured in Column 1. The dependent variable equals one if the loan is secured, zero otherwise. We include a connected lender indicator in Column 2 and a connected lead lender indicator in Column 3.

The last three columns present the results from the estimation of the following maturity model:

$$\textit{Log (Maturity)} = \alpha + \beta_1\, \textit{QAO} + \beta_2\, \textit{After\_QAO} + \beta_3\, \textit{Institutional Investor} + \beta_4\, \textit{Revolver} + \beta_5\, \textit{Interest Rate} + \beta_6\, \textit{Financial Covenants} + \beta_7\, \textit{Secured} + \beta_8\, \textit{Loan Size} + \beta_9\, \textit{Number Lenders} + \beta_{10}\, \textit{PP Indicator} + \beta_{11}\, \textit{Firm Size} + \beta_{12}\, \textit{Leverage} + \beta_{13}\, \textit{Profitability} + \varepsilon$$

We regress the logarithm of maturity on *QAO*, *After_QAO*, loan- and firm-specific control variables in Column 7. We include a connected lender indicator and interact it with *QAO* and *After_QAO* in Column 8. We include a connected lead lender indicator and interact it with *QAO* and *After_QAO* in Column 9. Firm-specific financial variables are winsorized at 0.01 level. Regressions include year fixed effects and standard errors are heteroskedasticity robust, clustered at the firm level. Robust standard errors are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See appendix for the variable definition.

Table 6: The Use of Financial Ratios in Performance Pricing Provisions

	(1)	(2)	(3)
Variables	**PP Financial Ratio**	**PP Financial Ratio**	**PP Financial Ratio**
QAO	-0.16**	-0.08	-0.03
	(0.064)	(0.073)	(0.080)
After_QAO	-0.04	-0.03	0.01
	(0.067)	(0.082)	(0.086)
Previous_Lender		0.24***	
		(0.057)	
*QAO*Previous_Lender*		-0.18**	
		(0.074)	
*After_QAO*Previous_Lender*		-0.05	
		(0.098)	
Previous_Lead_Arranger			0.17**
			(0.071)
*QAO*Previous_Lead_Arranger*			-0.26***
			(0.097)
*After_QAO*Previous_Lead_Arranger*			-0.12
			(0.114)
InstitutionalInvestor	0.18	0.19*	0.18*
	(0.109)	(0.110)	(0.110)
Revolver	-0.10*	-0.09*	-0.09*
	(0.050)	(0.050)	(0.050)
Interest rate	0.00**	0.00**	0.00**
	(0.000)	(0.000)	(0.000)
Secured	0.38***	0.37***	0.38***
	(0.072)	(0.072)	(0.072)
Loan Size	-0.25***	-0.27***	-0.26***
	(0.038)	(0.038)	(0.038)
maturity	0.02***	0.02***	0.02***
	(0.002)	(0.002)	(0.002)
Number Lenders	0.02***	0.01***	0.02***
	(0.004)	(0.004)	(0.004)
Firm Size	-0.28***	-0.29***	-0.28***
	(0.035)	(0.034)	(0.035)
Leverage	0.29**	0.27*	0.28**
	(0.141)	(0.140)	(0.141)
Profitability	1.81***	1.72***	1.80***
	(0.418)	(0.416)	(0.417)
Constant	(0.840)	(0.740)	(0.930)
	-0.66	-0.655	-0.66
Year dummy	Yes	Yes	Yes
Observations	7,232	7,232	7,232
Adj. R-squared	0.29	0.30	0.29

Table 6 presents the results from the estimation of the following PP Ratio model:

$$P(PP\ Ratio = 1) = \alpha + \beta 1\ QAO + \beta 2\ After\_QAO + \beta 3\ Institutional\ Investor + \beta 4\ Revolver + \beta 5\ Interest\ Rate + \beta 6\ Secured + \beta 7\ Loan\ Size + \beta 8\ Maturity + \beta 9\ Number\ Lenders + \beta 10\ Firm\ Size + \beta 11\ Leverage + \beta 12\ Profitability + \varepsilon$$

We estimate the probability of using accounting-based performance pricing provisions in Column 1. We include a connected lender indicator and interact it with *QAO* and *After_QAO* in Column 2. We include a connected lead lender indicator and interact it with *QAO* and *After_QAO* in Column 3.Firm-specific financial variables are winsorized at 0.01 level. Regressions include year fixed effects and standard errors are heteroskedasticity robust, clustered at the firm level. Robust standard errors are reported in parentheses. ∗∗∗, ∗∗, ∗ denote significance at the 1%, 5%, and 10% levels, respectively. See appendix for the variable definition.

Table 7: The Incremental Impact of Auditor Opinion after Controlling for Abnormal Accruals and Accruals Noise on Loan Terms

Panel A: Correlation Matrix

	Abnormal_Accruals	*Accrual_Noise*	*QAO*	*Number of Financial Covenants*
Accrual_Noise	**0.44**			
QAO	**-0.047**	**-0.011**		
Number of Financial Covenants	0.005	0.065	-0.102	
Interest rate	**0.179**	**0.282**	**0.058**	**0.159**

Panel B: Impact of Auditor Opinion on Interest Rate after Controlling for Information in the Financial Statements

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	**Interest Rate**	**Interest Rate**	**Interest Rate**	**Interest Rate**	**Interest Rate**	**Interest Rate**
QAO			14.12***	10.80***	18.01***	13.47***
			(3.664)	(3.811)	(3.995)	(4.233)
After_QAO					9.09***	5.93
					(3.519)	(3.607)
Abormal_Accruals	79.02***		78.01***		78.70***	
	(23.609)		(23.387)		(23.382)	
Accrual_Noise		181.14***		178.60***		176.85***
		(36.626)		(36.415)		(36.420)
Control variables	Included	Included	Included	Included	Included	Included
Constant	427.87***	403.45***	427.66***	403.71***	426.05***	402.82***
	(26.276)	(27.044)	(26.091)	(26.911)	(26.062)	(26.880)
Observations	10,622	9,803	10,622	9,803	10,622	9,803
R-squared	0.49	0.49	0.49	0.5	0.49	0.5
Adj. R-squared	0.48	0.49	0.49	0.49	0.49	0.49

Panel C: Impact of Auditor Opinion on Use of Financial Covenants after Controlling for Information in the Financial Statements

	(1)	(2)	(3)	(4)	(5)
Variables	**Financial Covenants**	**Financial Covenants**	**Financial Covenants**	**Financial Covenants**	**Financial Covenants**
QAO	-0.11**			-0.09*	-0.05
	(0.048)			(0.048)	(0.050)
After_QAO	-0.11**			-0.11**	-0.07
	(0.050)			(0.050)	(0.052)
Accrual_Noise		-0.84*			-0.82*
		(0.446)			(0.447)
Abormal_Accruals			-0.87***	-0.88***	
			(0.229)	(0.230)	
Control variables	Included	Included	Included	Included	Included
Constant	0.48	0.45	0.70**	0.71**	0.45
	(0.307)	(0.318)	(0.310)	(0.309)	(0.318)
Observations	11,205	9,803	10,622	10,622	9,803
R-squared	0.32	0.31	0.32	0.32	0.31
Adj. R-squared	0.32	0.31	0.32	0.32	0.31

Table 7 presents effects of different signals. *Abnormal_Accruals* is the abnormal accruals measured by the absolute value of performance-adjusted abnormal accruals and Accruals-Noise is the working capital accruals noise. Abnormal accruals (*Abnormal_Accruals*) as defined in Ashbaugh-Skaife et al. 2008 without controlling effect of conditional conservatism on accruals quality (Dechow et al. 1995; Kothari et al. 2005) and accruals noise (*Accruals_Noise*) follows Dechow and Dichev 2002 and Kothari et al. 2005.

Panel A presents the Pearson correlation matrix of selected variables. The correlations in bold are significant at the 5% level. Panel B presents the results from the estimation of the interest rate model same as Table 4. Panel C presents the results from the financial covenant model as Table 5. Firm-specific financial variables are winsorized at 0.01 level. Regressions include year fixed effects and standard errors are heteroskedasticity robust, clustered at the firm level. Robust standard errors are reported in parentheses. ∗∗∗, ∗∗, ∗ denote significance at the 1%, 5%, and 10% levels, respectively. See appendix for the variable definition.

Table 8: Lender Response to QAO and Internal Control Weaknesses

Panel A: Correlation Matrix

	Interest rate	*FinCovs*	*QAO*	*ICW*	*GC Opinion*	*Ab_Accruals*
Number of Financial Covenant	**0.191**					
QAO	**0.103**	**-0.03**				
Internal Control Weakness	**0.068**	0.009	**0.032**			
Going Concern Opinion	**0.278**	0.008	**0.134**	**0.075**		
Abnormal_Acrruals	**0.203**	**0.046**	0.015	**0.016**	**0.179**	
Accrual_Noise	**0.314**	**0.127**	**0.033**	**0.038**	**0.217**	**0.472**

Panel B: Interest Spread

Variables	(1) Interest Rate	(2) Interest Rate	(3) Interest Rate	(4) Interest Rate	(6) Interest Rate	(7) Interest Rate	(8) Interest Rate	(9) Interest Rate	(10) Interest Rate
QAO	15.75***				15.68***	12.92***	15.91***	12.84***	15.84***
	(3.558)				(3.538)	(3.729)	(3.592)	(3.715)	(3.571)
ICW		34.35***			34.19***			22.83**	33.33***
		(9.878)			(9.934)			(8.978)	(10.033)
Abnormal_Accruals			92.24***				89.29***		87.00***
			(27.697)				(27.471)		(27.567)
Accrual_Noise				201.83***		198.98***		194.18***	
				(42.510)		(42.677)		(42.037)	
Control variables	Included	Included	Included	Included	Included	Included	Included	Included	Included
Constant	427.79***	433.31***	430.31***	405.24***	426.64***	399.95***	423.48***	400.16***	422.66***
	(27.717)	(27.790)	(28.899)	(30.076)	(27.601)	(29.960)	(28.674)	(29.896)	(28.544)
Observations	10,277	10,277	9,957	9,231	10,277	9,231	9,957	9,231	9,957
R-squared	0.47	0.47	0.47	0.48	0.47	0.48	0.47	0.48	0.47
Adj. R-squared	0.47	0.47	0.47	0.48	0.47	0.48	0.47	0.48	0.47

Panel C: Covenant Use

Variables	(1) Financial Covenants	(2) Financial Covenants	(3) Financial Covenants	(4) Financial Covenants	(6) Financial Covenants	(7) Financial Covenants	(8) Financial Covenants	(9) Financial Covenants	(10) Financial Covenants
QAO	-0.11***				-0.11***	-0.09**	-0.10**	-0.09**	-0.10**
	(0.039)				(0.039)	(0.040)	(0.039)	(0.040)	(0.039)
ICW		0.09			0.09			0.12	0.09
		(0.084)			(0.084)			(0.089)	(0.083)
Abnormal_Accruals			-0.95***				-0.93***		-0.93***
			(0.213)				(0.213)		(0.213)
Accrual_Noise				-0.92**		-0.90**		-0.92**	
				(0.381)		(0.380)		(0.379)	
Control variables	Included	Included	Included	Included	Included	Included	Included	Included	Included
Constant	3.26***	3.23***	3.34***	3.37***	3.26***	3.40***	3.37***	3.40***	3.37***
	(0.303)	(0.304)	(0.308)	(0.316)	(0.303)	(0.316)	(0.308)	(0.316)	(0.308)
Observations	10,277	10,277	9,957	9,231	10,277	9,231	9,957	9,231	9,957
R-squared	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Adj. R-squared	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

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