Do Sophisticated Investors Understand Accounting Quality? Evidence from Bank Loans

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Abstract

An emerging body of evidence suggests that participants in the equity market and the corporate bond market misprice the information contained in financial statements. In contrast, financial intermediation literature suggests that banks can resolve information frictions by their superior ability to screen and monitor borrowers. We examine if the conjectured superiority of banks is reflected in pricing of accounting quality at the time of loan initiations. We measure accounting quality using abnormal operating accruals, i.e.: the difference between a firm's earnings and cash flows controlled for industry and normal level of activity. We find strong evidence that banks respond to the lower accounting quality of the borrower by charging a higher price (higher loan spread of 29-40 basis points) and stricter non price contract terms (shorter maturity and greater likelihood of requiring collateral). The results remain robust after controlling for a variety of proxies for loan default risk. Preliminary analysis also suggests that our results are consistent with the interpretation that limited information is a source of risk. Overall, our study provides direct evidence in support of the ability of sophisticated investors, commercial banks in our study, to process financial information which is in contrast to the evidence on mispricing of accruals by equity and corporate bond investors.

Modern theories of financial intermediation have focused on the special role of banks as information producers and processors (Leland and Pyle (1977); Diamond (1984); Fama (1985)). Banks act as "delegated monitors" to reduce inefficiencies in the production, processing and transmission of information, while making loans to the borrowers. As a consequence, research to date finds a robust, favorable, impact of bank loan announcements on borrowers' stock returns[1] (see, James and Smith (2000) for a comprehensive review of literature on the bank uniqueness). In contrast the response of equity investors to the announcement of most other forms of new security issuance (e.g. Public Bonds and Equity) is the insignificant or negative. Taken together, this has been viewed as indirect evidence of superior information processing by banks. On the other hand there is direct evidence that some investor groups, such as equity and corporate bond investors, misprice the information contained in financial reports (see, Sloan (1996); Xie (2001); Bhojraj and Swaminathan (2004)).

Therefore, we ask the following question: Do banks have a superior ability to detect and price accounting quality? An affirmative answer to our research question will provide direct evidence on the special role that banks play with respect to the other market participants and will complement the indirect evidence available in the extant literature. Our research question adds to existing evidence on whether sophisticated investors misprice the information contained in financial statements.[2]

[1]James (1987) documents a positive stock price impact of bank loan agreements; Lummer and McConnell (1989) examine this further by exploring the differences between loan renewals and non-renewals. Dahiya, Puri and Saunders (2000) document a negative stock price reaction to loans sales. All these results suggest that investors infer the bank's private information from the actions with respect to loan grants, renewals or loan sales.

[2]There is anecdotal evidence that commercial banks discern the quality of borrowers better than bond markets. According to an article in the New York Times three big banks expressed misgivings internally about WoldCom Inc.'s financial soundness in 2001, months before a $12 billion bond issue. WorldCom

Since banks significantly rely upon financial statements to assess and monitor borrowers' accounting quality,[3] we measure accounting quality as the magnitude of abnormal operating accruals, after controlling for industry and the firm's normal level of activity. Operating accruals represent the difference between the reported earnings and the operating cash flows of a firm. Large deviations between earnings and operating cash flows make it harder for the bank to assess the ability of borrowers to generate cash flows in the future. Differentiating between earnings and cash flows is crucial for the bank because the payments by borrowers in the form of interest or principal will be serviced out of cash flows.

We examine data on loans advanced by commercial banks and study the price and non-price terms of these contracts to test whether the loan terms incorporate the information contained in the borrower's operating accruals. Our main null hypothesis is based on the financial intermediation literature that banks are sophisticated investors who resolve information frictions in the market through their superior ability to screen and monitor borrowers, which market participants, cannot do. Thus banks should be able to discern accounting quality and structure loan contract terms accordingly.

Our results are summarized as follows. Using three metrics[4] of accruals to measure deviation of cash flows from earnings, we find strong evidence that banks

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subsequently filed for bankruptcy 14 months after the bond issue ("3 Banks Had Early Concern about WorldCom Finances", New York Times, March 17 2004).

[3]Borrowers are initially screened based on detailed historical and projected financial statements. Subsequent monitoring is through compliance with financial covenants that are enforced by using reported financial statements. Such covenants typically constrain the borrowers' operating and financial flexibility and include restrictions on leverage, current ratio, tangible net worth and maximum capital expenditures (Source: Loan Pricing Corporation). Research evidence form Beatty, Ramesh and Weber (2002) demonstrates that banks change interest rates to take into account accounting changes in computing and monitoring loan covenants.

[4]These metrics described in detail in section 2 are the unsigned abnormal accruals computed using the modified-Jones model (Dechow, Sloan, and Sweeny (1995)), unsigned abnormal current accruals (Teoh, Wong, and Welch (1998)) and the unsigned abnormal accruals based on the Dechow-Dichev model (Dechow and Dichev (2002)), respectively.

modify both their price and non price contract terms to their borrowers accounting quality. We find that, the greater the magnitude of the unsigned abnormal accruals, more unfavorable is the loan contract terms to the borrower. In uni-variate tests, the interest spread charged by the bank between firms in the lowest versus the highest quintile of abnormal accruals increases by 80 to 87 basis points. In multivariate tests, controlling for various measures of firm and loan characteristics, we find that firms with high abnormal accruals face significantly higher cost of bank debt to the tune of 29 to 40 basis points.

Next, we examine the impact of accruals on other contract terms of the bank loan. Controlling for asset maturity in addition to other firm and loan characteristics, we find that high abnormal accrual firms obtain loans of significantly lower maturity. We also show that the likelihood of being required to post collateral is also significantly higher for firms with high abnormal accruals. Since banks set all contract terms jointly, we model the maturity and pricing decisions of the bank within a simultaneous equations framework. We continue to obtain results similar to the single equation estimates and this confirms that our results are not biased by ignoring the simultaneous nature of the contract terms.

Finally, we examine the effect of potential earnings management practices by the borrowers by repeating the analysis using the signed abnormal accruals to distinguish between income-increasing or income-decreasing accruals. We find the price and non-price terms of loan contracts exhibit a "U" shaped pattern with the higher spreads and more stringent loan terms for borrowers with extreme income-increasing or income-decreasing abnormal accruals. Overall, the evidence points to the fact that banks incorporate information about the magnitude of abnormal accruals while setting loan

terms. Borrowers with high abnormal accruals are associated with unfavorable loan terms and hence a higher cost of capital.

We also explore some additional and alternate interpretations of our results. First, we hypothesize that abnormal accruals measure the uncertainty about the firm's cash flows and reflect limited information about the borrower. If limited information is a source of risk for the bank, in principle it should be diversifiable and need not be compensated for. However as Barry and Brown (1985) show in the context of the Capital Asset Pricing Model (CAPM), the systematic risk of securities is affected by the amount of available information and thus limited information is a source of non-diversifiable risk. Thus, one interpretation of our results could be that the higher interest spread for high abnormal accrual borrowers reflects the bank's compensation for information risk. Second, if our measures of accruals measure information uncertainty we expect these measures to be positively correlated with other measures of information uncertainty such as the level of analyst forecast dispersion. A high correlation would serve as ratification for our use of abnormal accruals metrics to measure accounting quality. Finally, to guard against the possibility that abnormal accruals are proxying for some omitted default risk factors of the firm, we use a number of measures of default used in prior literature to check for the robustness of our results.

The results of these three-fold tests are as follows: Using the entire Compustat data from 1982-2002, we classify all firms based on their accrual measures into quintiles, from the lowest to the highest. We find a pattern of decreasing R^2 (for all our three measures of accruals) across the quintiles, for a regression of firm's cash flow from

operations on past cash flow from operations and other controls.[5] The lower predictability of future cash flows for high abnormal accruals firms provides some support for our interpretation of the abnormal accrual metrics as a proxy for limited information. Next, using data on quarterly analyst forecasts for the period 1982-2002, we compute analyst forecast dispersion and find that the dispersion is increasing in the abnormal accrual quintiles, again supporting the interpretation that accruals measure limited information. Finally, in cross sectional regressions of loan rates, we control for four different default risk measures of the firm (Altman Z-score, Credit rating, Ohlson O-Score, Asset beta of the firm) and find that abnormal accrual measures continue to be significant predictors of loan rates. This suggests that the abnormal accrual metrics are not proxying for some other omitted risk factors. To conclude, using these three distinct pieces of evidence, we suggest that accruals can be interpreted as a measure of the relative lack of accuracy of information about the firm's cash flows and earnings for which the bank demands a risk premium.

Our paper makes four distinct contributions to the literature. First, by showing that banks consider the magnitude of abnormal accruals in pricing and structuring their contracts, we provide direct evidence supporting the uniqueness of banks which underpins the literature on financial intermediation. Second, we add to the growing body of evidence that investors misprice information in accruals by showing that some sophisticated investors (banks, in our case) properly use this information while structuring financial contracts. Third, we advance the explanation that our results support, and are consistent with, the notion of limited information as a source of risk – a

[5] This methodology is adopted from Dechow, Kothari and Watts (1998).

view increasingly gaining currency in the asset pricing literature.[6] Finally, we show how accounting quality has a direct and measurable impact on a firm's cost of capital and quantify this impact.

The rest of the paper is as follows. Section I describes the data and the three distinct metrics of accruals used in the paper to measure deviations of cash flows from earnings. Section II presents the research design and results relating to the univariate and the multivariate analysis of the relationship between accruals and contract terms of the loan. Section III provides an interpretation of our results, consistent with the notion of limited information as a source of risk. Section IV concludes.

I. Data

A. Data on Firms

In order to identify the firms to be used in our study, we begin with a sample of bank loans from the Dealscan database provided by the Loan Pricing Corporation. These loans are matched with the Compustat database in order to ensure that all firms have accounting data available. After matching with Compustat, we have a sample of 12,241 loans. We exclude 1878 loans for which we are unable to obtain information about the loan spread. We require the firm to have the Compustat annual data for the previous fiscal year, relative to the loan year so as to compute the firm specific controls as well as the accruals measures. The final sample contains 7334 loans obtained by 3082 firms over the period 1988-2001. Table I Panel A describes the characteristics of the sample loan-firms at the end of the fiscal year prior to the loan year

[6] See Easley, Hvidkjaer and O'Hara (2002) and Easley and O'Hara (2003)

B. Abnormal Operating Accruals

In order to measure accounting quality we use three approaches in a manner similar to Francis, et al. (2002) measures of earnings quality. Under all approaches, we rely on association between accruals and accounting fundamentals to separate the accruals measure (either total accruals or working capital accruals) into normal and abnormal components. In this framework, we interpret a large unsigned abnormal accrual as a high abnormal deviation between cash flows and earnings of a firm that makes it harder for outside investors to discern the true economic performance. Using these approaches, we compute our three abnormal operating accruals metrics labeled as UAA1, UAA2 and UAA3, which refer to the absolute value of the abnormal accruals.[7]

The first approach to measuring abnormal operating accruals relies on the Jones model (Jones (1991)) as modified by Dechow, Sloan and Hutton (1995) to separate total accruals into normal and abnormal accruals. The absolute abnormal accrual derived from this model is our first abnormal operating accruals metric defined as UAA1. The second metric, UAA2, is the absolute abnormal current accruals estimated following Teoh, Wong, and Welch (1998). In the third approach we use the Dechow and Dichev (2002) method to define low accounting quality as the extent to which accruals do not map into cash flow realizations. In the Dechow-Dichev model, a poor match between accruals and cash flow signifies low accrual quality or large estimation errors in the accruals. We compute each of these metrics for the fiscal year (t) prior to the loan date as described below.

We define the accruals variables for firm i in year t as:

[7] We use the signed versions of these metrics, SAA1, SAA2, and SAA3, in our later analyses to explore whether it is the magnitude or the sign that matters for the determination of the cost of bank debt.

$$\text{Total Accruals}_{it} = TA_{it} = EBXI_{it} - CFO_{it}$$

where, EBXI is the earnings before extraordinary items and discontinued operations (annual Compustat data item 123) and CFO is the operating cash flows (from continuing operations) taken from the statement of cash flows (annual Compustat data item 308 – annual Compustat data item 124).[8]

We compute total current accruals using the methodology in Dechow and Dichev (2002) using information from the statement of cash flow as follows,

$$\text{Total Current Accruals}_{it} = TCA_{it} = -(\Delta AR_{it} + \Delta INV_{it} + \Delta AP_{it} + \Delta TAX_{it} + \Delta OCA_{it}),$$

where, ΔAR is the decrease (increase) in accounts receivable (annual Compustat data item 302), ΔINV is the decrease (increase) in inventory (annual Compustat data item 303), ΔAP is the increase (decrease) in accounts payable (annual Compustat data item 304), ΔTAX is the increase (decrease) in taxes payable (annual Compustat data item 305) and ΔOCA is the net change in other current assets (annual Compustat data item 307).

The basic approach that we follow is to estimate the normal level of accruals for each of our metrics and define abnormal accruals as the difference between actual level and the normal level of accruals. Thus to calculate UAA1 we first run the following cross-sectional regressions for each of the 48 Fama and French (1997) industry groups for each year based on the modified Jones model.

$$\frac{TA_{it}}{Assets_{i,t-1}} = k_{1t}\frac{1}{Assets_{i,t-1}} + k_2\frac{\Delta \text{Re}v_{it}}{Assets_{i,t-1}} + k_3\frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it} \qquad (1)$$

[8] We follow Hribar and Collins (2002) methodology for computing total accruals. This measure computes accruals directly from the statement of cash flows as opposed to changes in successive balance sheet accounts. While, the differences in balance sheet accounts approach has been used in prior studies, Collins and Hribar (2002) show that this approach results in biased measures of accruals especially for firms with mergers and acquisitions or discontinued operations. Additionally, our measure of accruals is comprehensive and includes accruals from deferred taxes, restructuring charges and special items besides the normal operating accruals and Hribar and Collins (2002) state that is the most appropriate measure.

where $Asset_{it-1}$ is firm i's total assets (annual Compustat data item 6) for year t-1, ΔREV_{it} is the change in firm i's revenues (annual Compustat data item 12) between year t-1 and t and PPE_{it} is the gross value of property, plant and equipment (annual Compustat data item 7) for firm i in year t. This regression is estimated for each industry-year and the coefficient estimates from equation (1) are used to estimate the firm-specific normal accruals (NA_{it}) for our sample firms.

$$NA_{it} = \hat{k}_{1t}\frac{1}{Assets_{i,t-1}} + \hat{k}_2\frac{(\Delta Rev_{it} - \Delta AR_{it})}{Assets_{i,t-1}} + \hat{k}_3\frac{PPE_{it}}{Assets_{i,t-1}} \qquad (2)$$

where, ΔAR_{it} is the change in accounts receivable (annual Compustat data item 2) between year t-1 and t for firm i. Now the abnormal accruals are estimated as the difference between the total accruals and the fitted normal accruals as $SAA1_{it}$ = Signed Abnormal $Accruals_{it}$ = (TA_{it} / $Asset_{it-1}$) – NA_{it}. The absolute value of the abnormal accruals SAA1 is the first measure of abnormal operating accruals, $UAA1_{it}$ = Unsigned Abnormal $Accruals_{it}$ = $|SAA1_{it}|$.

For our second measure, we estimate the following regression for each industry-year based on Teoh, Wong and Welch (1998) for total current accruals:

$$\frac{TCA_{it}}{Assets_{i,t-1}} = \gamma_{1t}\frac{1}{Assets_{i,t-1}} + \gamma_2\frac{\Delta Rev_{it}}{Assets_{i,t-1}} + \eta_{it} \qquad (3)$$

The coefficients estimated from this industry regression are used to compute the normal current accruals (NCA_{it}) for each sample firm as,

$$NCA_{it} = \hat{\gamma}_{1t}\frac{1}{Assets_{i,t-1}} + \hat{\gamma}_2\frac{(\Delta Rev_{it} - \Delta AR_{it})}{Assets_{i,t-1}} \qquad (4)$$

We then compute the abnormal current accruals as $SAA2_{it}$ = Signed Abnormal $Accruals_{it}2$ = (TCA_{it} / $Asset_{it-1}$) – NCA_{it}. Our second metric for abnormal operating accruals is the absolute value of this abnormal current accruals, $UAA2_{it} = |SAA2_{it}|$.

Our third measure of abnormal operating accruals is based on Dechow and Dichev (2002) regression relating total accruals to cash flow of the firm. The following regression is estimated for each year for the each of the Fama and French (1997) industry groups.:

$$\frac{TCA_{it}}{AvgAssets_{it}} = \theta_{0t} + \theta_{1t}\frac{CFO_{i,t-1}}{AvgAssets_{it}} + \theta_{2t}\frac{CFO_{i,t}}{AvgAssets_{it}} + \theta_{3t}\frac{CFO_{i,t+1}}{AvgAssets_{it}} + \nu_{it} \qquad (5)$$

We define $SAA3_{it}$ as the residual ν_{it} from the regression. The third measure of abnormal operating accruals, $UAA3_{it}$, is the absolute value of the residual ($|SAA3_{it}|$). All three measures of UAA and SAA are winsorized at the top and bottom 1%.

We provide descriptive statistics for these three measures of abnormal operating accruals for our overall sample in Table I Panel B. In Table I Panel C, we provide some preliminary evidence that firm characteristics differ systematically as we move from the low accrual to the high accrual quintiles.

C. Data on Bank Loans

We use the Dealscan database that contains information on loans obtained by firms and provides details of both price and non-price terms. The database is compiled

from SEC filings by firms and self-reporting on part of banks. The database covers loans and other financing arrangements that were originated globally since 1988.[9]

We select all loans for publicly traded US firms for which loan and financial data are available. Some loan packages or deals can have several facilities for the same borrower and with the same contract date. We include each facility as a separate sample observation since many loan characteristics as well as the spread over LIBOR, varies with each facility. Our sample of loans contains term loans, revolvers, and 364-day-facilities and excludes non-fund based facilities such as standby letters of credit and very short term bridge loans. All loans in our sample are senior in terms of the claim on the assets of the firm.

The cost of the bank borrowing is measured as the drawn all-in spread ("AIS Drawn") which is measured as a mark-up over LIBOR and is paid by the borrower on all drawn lines of credit. Most of the bank loans are floating rate loans and therefore the cost of the loan is quoted as a spread over LIBOR.

Strahan (1999) shows that AIS Spread as well as other loan contract terms vary with borrower risk. Therefore, we analyze the effect of accruals on both the AIS spread as well as the non-price terms of loan contracts controlling for firm characteristics. We use the following non-price terms of contracts: facility size, maturity period of the loan, whether secured by collateral or not. Additionally, we control for the loan type, S&P debt rating and loan purpose while analyzing the cost of the borrowings since these have been identified in the literature as being related to loan spreads. According to Strahan (1999),

[9] Other papers that have used this database include Carey, Post and Sharpe (1998), Hubbard, Kuttner and Palia (1998), Strahan (1999), Sunder (2002), Beatty and Weber (2003), and Dennis, Nandy, and Sharpe (2000)

riskier borrowers would face higher spreads, smaller facility size, shorter maturity period, and would be required to provide collateral.

Table I Panel D describes the characteristics of loans in our sample. The mean (median) AIS drawn is 192.5 basis points (175 basis points) and the maturity is 47 months (38 months) for a facility size of 177.5 million (50 million) and 77.4% of loans are secured.

II. Methodology and Results

The main objective of the analysis is to study the impact of accounting quality (as measured by the accruals described in Section 2.2) on the price of bank debt, measured as AIS Drawn and other non price characteristics. We first report our results from a univariate analysis of price and non-price terms of loans across quintiles sorted on the three measures of abnormal operating accruals. Next, we report results from our multivariate analysis relating the AIS Drawn, Maturity and Collateral to measures of abnormal operating accruals, controlling for loan and firm characteristics that have been shown by the prior literature to affect the price and non price terms.

A. Univariate Results

In order to establish the relation between abnormal operating accruals and the price of bank debt and other contract terms, we first carry out a univariate analysis across sub-samples of firms sorted on the UAA metrics into quintiles. The results are reported in Table II. The AIS Drawn over LIBOR is generally increasing across quintiles sorted by all the three metrics, i.e., UAA1, UAA2 and UAA3. The difference between the

lowest and highest quintiles is economically and statistically significant. Firms moving from the lowest quintile of UAA to the highest quintile face a higher cost of bank debt of about 80 to 87 basis points.

If banks incorporate information about abnormal accruals into the pricing of loans, we expect to find a similar effect on other contract terms which are also set simultaneously. The size of the loan (Facility Size) is monotonically decreasing and firms moving from the lowest to highest quintiles of UAAs experience a decrease in facility size of more than 50%. The loan maturity for the lower UAA quintiles is greater than the loan maturity for the higher UAA quintiles by about 6 – 8 months. We find that banks are more likely to require collateral, and the fraction of loans secured by collateral is about 18 to 24 percentage points higher as we move from the lowest to the highest UAA quintile. For all these contract terms, the difference between the lowest and highest quintiles is also statistically significant at the 1% level (except for fraction with performance pricing). All these results are consistent with the hypothesis that banks alter their contract terms unfavorably, to partially mitigate the difficulty they face in discerning the true economic performance in the face of high abnormal accruals.

We also look at additional contract features of the loan. The fraction of firms with performance pricing is lower for high UAA firms relative to low UAA firms although this difference is significant only for UAA1.[10] The number of lenders is decreasing across UAA quintiles and is statistically and economically different between the lowest and highest quintile. One possible explanation is that banks find it harder to place the lower accounting quality firms (higher abnormal accruals firms) with more

[10] Beatty, Dichev and Weber (2002) find that performance pricing in bank loan contracts is becoming a common feature and is an example of market pricing directly tied to accounting-based measures of performance

syndicate members since it may be harder to value these loans. Finally, we look at the initial upfront fees and the annual fees on the loan. Across all three accruals measures, the bank requires higher fees for higher UAA firms relative to lower UAA firms. This result is consistent with higher screening and monitoring costs for firms with higher accruals.

Therefore, the overall conclusion from the univariate analysis is that banks appear to consider the accruals of a firm while deciding the price (AIS Drawn) and non-price terms (Facility Size, Maturity and Security) of the loan. Firms with higher abnormal accruals (i.e. higher UAA Quintiles) face more adverse loan terms compared to firms with lower abnormal accruals (i.e. lower UAA Quintiles).

B. Multivariate Results on the Interest Spread (AIS Drawn)

We study the impact of abnormal accruals on the price of bank debt in a multivariate setting controlling for various measures that proxy for firm risk and firm profitability, in addition to loan characteristics. All of these controls have been shown by the prior literature to be important determinants of loan rates. The dependent variable in these regressions is the AIS Drawn which represents the floating interest rate spread charged over LIBOR by the lending bank. The list of control variables and their definitions are described in Appendix 1.

In addition to the variables reported by the existing literature, we also use a measure of Cash Flow Volatility of the firm scaled by Total Debt. Cash flow volatility is measured as the standard deviation of quarterly cash flow from operations computed of the past four fiscal years prior to the loan year scaled by the total debt. This measure can

be interpreted as a relative magnitude of one standard deviation in cash flows to the total debt commitment of the firm.[11] We expect the cost of bank debt to be increasing in leverage and cash flow volatility and decreasing in firm size, interest coverage, tangibility, current ratio, and profitability. In case of high market-to-book firms, the cost of the debt is expected to be decreasing in the market-to-book

We control for loan characteristics that have been shown to be related to borrower risk and therefore loan spread. The variables used are "Log Facility Size" which the log of the loan amount, and "Log Facility Maturity", which is the log of the maturity of the bank loan. If the loan characteristics proxy for risk factors then based on the evidence in Barclay and Smith (1995), we expect the coefficient on Log Facility and Log maturity to be negative, since riskier borrowers are granted smaller loans and for shorter periods. We also control for whether the loan was secured since higher risk borrowers face greater requirement to provide collateral (Berger and Udell (1990)).

The results from the regressions are presented in Table III, Panels A and B. In Panel A, we include the firm specific UAA values. As the first three specifications show, the coefficients on all the three measures of accruals, UAA1, UAA2 and UAA3 are positive and significant at the 1% level. Therefore firms with higher abnormal accruals face higher costs of bank debt after controlling for firm and loan characteristics. The next three specifications include the collateral information (whether the loan is collateralized or not; requirement of this information reduces our sample size by about 30%) and dummy variables for the type and purpose of the loan (these include dummy variables for term loan, revolver greater than one year, revolver less than one year, and dummy for the purpose of the loan viz. acquisition, debt repayment, corporate purposes, working capital,

[11] We also used the unscaled cash flow volatility and the results are qualitatively unchanged.

etc.). The coefficients continue to be strongly significant at the 1% level for all the three measures of accruals. We also find that the coefficient on secured dummy is positive and significant. This is consistent with Berger and Udell (1990) who show that loans with collateral are associated with riskier firms and higher interest costs.

In order to gauge the economic magnitude of this effect, in Panel B we include a dummy for each UAA quintile instead of the UAA variable. The difference in the coefficients between quintile 1 and quintile 5 can readily be interpreted as the difference in AIS Drawn between firms in these quintiles. Controlling for firm and loan characteristics the incremental interest cost for firms in quintile 5 compared to quintile 1 range from 29 to 40 basis points depending on the type of UAA measure used in the regressions. Based on the evidence in Panels A and B, we conclude that firms with higher abnormal accruals face higher costs of bank debt after controlling for firm and loan characteristics.[12]

C. Multivariate Results on Other Non-price Contract Terms

Having established the effect of accruals on the price of the bank loan, we examine the effect of accruals on the non-price terms of the loan. Our sample provides a unique setting for examining this question. If the banks care about accounting quality, they can mitigate the effect of poor accounting quality by altering specific contract features besides the interest rate. We examine the effect of accruals on two specific non price contract terms – loan maturity and whether the loan is collateralized. Univariate

[12] In unreported results we also included an investment grade dummy (with S&P rating of BBB and higher) for the sample of loans that are rated and the results were materially unchanged. The requirement of credit rating information for the loans however reduces our sample size significantly. We investigate the importance of our controls for risk in greater detail in Table 8.

results in Table II suggest that both these contract terms are adversely affected by accounting quality.

We model the relationship between loan maturity and UAA after controlling for variables, identified by Barclay and Smith (1995) and Barclay, Marx and Smith (2003) that are known determinants for debt maturity. We control for firm size, leverage, market-to-book and two additional variables that are unique to the maturity regressions, following Barclay and Smith (1995). First, we use a measure of asset maturity measured as:

$$\text{Asset Maturity} = \frac{CA}{CA+PPE} * \frac{CA}{COGS} + \frac{PPE}{CA+PPE} * \frac{PPE}{Depreciation}$$

where, CA is the current asset, PP&E denotes net property, plant and equipment and COGS refers to cost of goods sold. The intuition behind this variable is that firms match their debt maturity to asset maturity. Second, we include a dummy variable for regulated industries, i.e. utilities in our sample. The results of these regressions are presented in Table IV, Panel A.

We find that controlling for other determinants of loan maturity, the coefficients on the UAA metrics are negative and significant (at the 1% level), implying that higher abnormal accrual firms face lower maturity on their loans. For example, a one standard deviation in UAA1 (0.23) causes a lowering of the maturity by 1.23 months[13]. We also find that the coefficient on the regulated dummy is negative and significant. This result is in sharp contrast to the results reported by Barclay and Smith (1995), who find a positive and significant coefficient.

[13] The impact on maturity is calculated for a one standard deviation change in UAA around its mean value (keeping the other independent variables at their mean values) on the predicted value of maturity.

To investigate this further, we hypothesize that the difference between our results and Barclay and Smith results could be due to differences in the nature of bank debt (studied in this paper) and market debt (studied in Barclay and Smith(1995)). We therefore use a dummy variable for capital market access (equals one if a firm had a debt rating assigned to it in the Compustat files) and interact this dummy variable with the regulated industry dummy variable.

The results of the next three regression specifications show that the negative coefficient on the regulated industry dummy is entirely restricted to firms with capital market access. Our results suggest that firms with capital market access choose to obtain short maturity debt from banks and longer maturity debt from the markets, reconciling our evidence with that of Barclay and Smith (1995).

We then study the impact of accounting quality on the loan's likelihood of being secured. Based on the univariate results in Table II, we expect a positive relationship between our UAA metrics and the likelihood of being secured. We model this decision using a probit model where the dependent variable is '1' if the loan is secured and '0' if the loan is unsecured. We control for leverage, tangibility of assets, market-to-book and loan concentration, measured as the fraction of the loan size to the sum of existing debt plus the loan size. [14] As reported in Table IV, Panel B, the coefficient on the UAA metrics is positive and significant implying that firms with lower accounting quality are more likely to be required to provide collateral against their loans. For example, a one standard deviation change around the mean value of UAA1, holding all other variables constant at their mean increases the likelihood of collateralization of loans by 9.71%.

[14] We use loan concentration because, if the loan is a significant portion of the firm's debt, it is more likely to be secured (Berger and Udell (1990) and Boot, Thakor and Udell (1991), Dennis, Nandy, and Sharpe (2000)).

D. Simultaneous Estimation of Price and Non-Price Terms

So far, we have estimated the impact of abnormal accruals on contract terms of the bank loan using a single equation framework. Focus on a single contract feature raises econometric issues about the treatment of other contract terms that are determined simultaneously and are related to a common set of exogenous explanatory factors. Thus the estimates from the single equation models might be biased and inconsistent. In order to address these issues, we estimate the regressions in a simultaneous equation framework. We jointly estimate the AIS Drawn and Log Maturity using a three-stage least squares (3SLS) approach.

One of the critical issues in a simultaneous equation system is to use valid instruments in order to uniquely identify the system. For the AIS Drawn, we use loan size as an instrument as it is a measure of the riskiness of the loan. Following the evidence in Barclay and Smith (1995), we use asset maturity and a dummy for regulated industry in the maturity equation as instruments.

The results of the simultaneous equation estimation are reported in Table VI, Panel B for each of the three UAA metrics. We find that the coefficient on UAA in the AIS Drawn equation is significant at the 1% level or higher for all three UAA metrics. The relationship between the UAA metrics and maturity continues to be significantly negative in all the three specifications. Overall the results of the simultaneous equation estimation continue to support the conclusions of the single equation estimations.

D.1 Other Robustness Issues

Table VI, Panel A reports the results of additional robustness tests for the AIS Drawn regressions. The firms in the sample could have multiple loan facilities during the sample period, and sometimes in the same year. This could cause potential cross-sectional dependence in the error terms in our regressions reported in Table III. In order to assess the impact of this cross-sectional dependence on the reported results, we run a number of checks and the results are reported in Table VI, Panel A. We include only one loan per firm year (specification (i)), consider the first loan transaction between the bank and the firm (specification (ii)) and also conduct a Fama – Macbeth style regression on the sample every year (specification (iii)) and report the time series average of the coefficients. In all cases we continue to find that the coefficient on the UAA1 metric is statistically and economically significant.[15]

E. Unsigned vs. Signed Accruals

In the results obtained so far, we have used the *unsigned* abnormal operating accruals as a proxy for the accounting quality of the firm viz. the extent to which cash flows and earnings diverge. In this section, we ask the question: Does the *sign* of the abnormal operating accruals matter to the bank in setting the contract terms of the loan? An analysis of the abnormal accruals by sign would provide insight into whether the bank has an asymmetric reaction to positive abnormal accruals vis-à-vis abnormal accruals. In order to explore this we analyze the signed abnormal accruals, SAA. Using our three approaches to compute abnormal accruals (outlined in section 2.2), we compute three metrics of signed abnormal accruals. SAA1 corresponds to the abnormal accruals

[15] Results for UAA2 and UAA3 metrics are similar and hence omitted to conserve space.

computed using the modified-Jones model (the estimated UAA1 measure with the sign), SAA2 corresponds to the abnormal accruals computed using the Teoh, Wong and Welch model, and SAA3 corresponds to the abnormal accruals computed using the Dechow-Dichev model. Table V, Panel A contains the average SAA1 for all firm-loan years in our sample. Table V, Panel B, analyzes the AIS drawn and loan terms across SAA quintiles. The lowest quintile (Quintile 1) contains firms with the most negative abnormal accruals (income decreasing abnormal accruals) and those in the highest quintile (Quintile 5) have the most positive abnormal accruals (income increasing abnormal accruals). We find that the firms in the extreme quintiles share similar spreads and loan features and the firms in the middle quintiles have lower AIS Drawn and relatively more favorable loan terms. This "U-shaped" pattern in loan terms implies that banks view both positive and negative abnormal accruals in an unfavorable light. Thus our results suggest that the negative relationship between accruals and AIS Drawn is largely driven by the magnitude of the abnormal accruals and not the sign. This is clear in Figure 1 where we plot the AIS Drawn for quintiles based on UAA1 and SAA1.[16] The plot for the UAA (solid line) is an increasing line whereas the SAA line is U-shaped (dashed line). This pattern is also borne out in the multivariate analysis reported in Table V, Panel C. Controlling for firm risk, loan characteristics and time fixed effects, we find that the coefficients on positive SAA metrics are positive and significant while the coefficients on negative SAA metrics are negative and significant. This implies that

[16] The relation is similar between UAA2 and SAA2 and UAA3 and SAA3 and is not reported in the interest of brevity.

irrespective of the direction of the abnormal accruals (income increasing or decreasing), a high magnitude of abnormal accruals increases the cost of bank debt.[17]

III. Interpretation of the results

In this section we explore two alternative interpretations of our results (i) higher abnormal accruals leading to higher contracting costs (price and non price terms) is simply a compensation for higher transactions costs resulting from the screening and monitoring functions performed by the bank (ii) abnormal accruals can be interpreted as a measure of the relative lack of information (lack of accounting quality) about the firm's cash flows and thus our results indicate a compensation for this limited information as a source of risk.

A. Transactions costs

In this section, we ask whether the relation between the price and non price terms and accounting quality (measured by abnormal accruals) is simply driven by higher information processing/analysis costs (screening and monitoring costs) imposed on investors. In such a scenario, investors would therefore require compensation for these higher "transactions costs" that translates into a higher required rate of return.

Given the institutional structure of bank syndicates, the lead bank typically undertakes all or most of the information processing and monitoring effort. Thus, any compensation for these costs are expected to be made directly to the lead bank and not

[17] In unreported results, we conduct a multivariate analysis using SAAs without separating the positive from the negative SAA. The coefficient on SAAs is largely insignificant misleadingly suggesting that banks ignore the information in SAA. However, as the reported results show the decomposed SAAs are strongly associated with the AIS spread.

included in the overall spread that is earned by all non-lead banks as well. We therefore examine the association of abnormal accruals and the upfront fees and the annual fees paid on the loan. If the lead bank is compensated through higher fees, we would expect to see an increasing pattern of upfront fees (compensation for screening) and annual fees (compensation for continued monitoring) across UAA quintiles. Table II shows the trend in Upfront Fees and Annual Fees for quintiles formed using three alternative UAA measures. Both types of fees are increasing, though not strictly monotonic, for higher levels of absolute abnormal accruals. Our results show that, both types of fees are significantly higher for Quintile 5 (High UAA) relative to Quintile 1 (Low UAA). This result suggests higher abnormal accruals are associated with higher transactions cost, as explicitly measured by the fees. Therefore, we conclude that the adverse relationship between accounting quality measures and loan contracting terms (AIS Drawn, Maturity, Collateral) uncovered by us is unlikely to be a compensation for higher transactions costs.

B. Abnormal Accruals – limited information as a source of risk

As pointed out earlier, abnormal accruals can be interpreted as a measure of the relative lack of information (lack of accounting quality) about the firm's cash flows. If the limited information is a source of risk for the bank, in principle it should be diversifiable and need not be compensated for. However as Barry and Brown (1985) show in the context of the Capital Asset Pricing Model (CAPM), the systematic risk of securities is affected by the amount of available information and thus limited information is indeed a source of non-diversifiable risk. Thus, one interpretation of our results is that

the bank is being compensated for the information risk. We investigate the validity of this interpretation in three different ways.

First, we hypothesize that abnormal accruals are indeed a measure of lack of information about the firm's cash flows, and expect that the predictability of future cash flows will be decreasing in the level of the firm's abnormal accruals. Dechow, Kothari and Watts (1998) show that future cash flows can be predicted using current cash flow from operations and current net income. According to them, net income is a better predictor of future cash flows from operations. Therefore if there is greater noise in net income arising from accruals, we expect that the predictability of future cash flows will be lower for firms with high abnormal accruals. In Table VII Panel A, we report results from a regression of current cash flows on lagged cash flows and net income, controlling for firm fixed effects. Therefore we can interpret the coefficients as the within-firm effects for cash flow predictability. Using the entire Compustat data from 1982-2002, we classify each firm into a UAA quintile based on its median UAA rank over the sample period. We then run the regression separately for each quintile. We find that the fit of the regression is lower for higher abnormal accrual firms, Q5, than the low abnormal accrual firms, Q1. This pattern of decreasing R^2 holds across quintiles for UAA2 and UAA3 (results not reported). The lower predictability of future cash flows for high UAA firms provides support for our interpretation of UAA metrics as a proxy for the limited information as a source of risk.

Second, if our measures of abnormal accruals are indeed a measure of lack of information, we also expect these to be positively correlated with other measures of lack of information about a firm such as, the level of analyst forecast dispersion. We test the

robustness of the UAA metrics as a proxy for limited information by relating it to the level of analyst forecast dispersion. Using data on quarterly analyst forecasts for the period 1982-2002, we compute analyst forecast dispersion in two ways. First, we use the standard deviation of the last analyst forecasts in the quarter, scaled by the absolute mean forecast (Dispersion1). Second, we use the standard deviation of latest forecasts scaled by the quarter beginning share price (Dispersion2).[18] We sort all firm quarters into 5 quintiles based on their UAA1 ranks.[19] In Table VII, Panel B, we report the average forecast dispersion for each UAA1 quintile. The forecast dispersion increases as we move from the lowest UAA quintile (Q1) to the highest UAA quintile (Q5). The difference in dispersion, for both Dispersion1 and Dispersion2, is significantly higher (at the 1% level) for Q5 relative to Q1. This again provides support for the interpretation of UAA metrics as measures of limited information.

Finally, we examine if our measures of abnormal accruals show up significant in our tests, simply because of some omitted risk factors that predict the default probability of the loan. Even though our firm specific controls in the tests are designed to precisely pick up this effect, we explicitly compute/use 4 different measures of default risk as risk controls in the cross sectional regressions – the Altman Z-score[20], the squared Altman Z-score (to take care of any non-linearity in the specification), the Ohlson O-Score[21], the

[18] In computing Dispersion1, we exclude firms with absolute mean forecast less than \$0.001. For Dispersion2, we exclude firms with share price less than \$5.

[19] All results hold for UAA2 and UAA3 as well, but have not been reported in the interest of brevity.

[20] Since the Altman Z-score uses profitability and interest coverage information in its computation, we exclude those variables in the first two specifications. The Altman Z-score has been computed using the specification in Altman (1968) model: Z = 1.2 (Working Capital/Total Assets) + 1.4 (Retained Earnings/Total Assets) + 3.3 (EBIT/Total Assets) + 0.6 (Market Value of equity/Book Value of Total Liabilities) + (Sales/Total Assets)

[21] The O-score is computed following the implementation of Ohlson (1980) by Griffin and Lemmon (2002). The O-score = -1.32 – 0.407 (Log Total Assets) + 6.03 (Total Liabilites/ Total Assets) – 1.43

asset beta of the firm and the credit rating on the firm. The results of these tests are provided in Table VII, Panel C. It can be seen that the UAA1 metric continues to be strongly significant even after explicitly controlling for default risk in all the five specifications. These results strongly support the notion that the UAA metrics are not a proxy for some omitted risk factor.

Using these three different types of tests, one interpretation of our results is that that the UAA metrics which proxy for limited information about cash flows is a source of risk that is explicitly compensated for. Thus, we advance the explanation that our results support, and are consistent with, the notion of limited information as a source of risk – a view increasingly gaining currency in the asset pricing literature (Easley, Hvidkjaer and O'Hara (2002) and Easley and O'Hara (2003)).

IV. Conclusion

We examine if banks have the ability to understand the relationship between operating accruals, future earnings and cash flows. Differentiating between earnings and cash flows is crucial for the bank because, the payments to the loan contracts in the form of interest or principal will be serviced out of cash flows and not earnings of the borrower. This issue is important since various papers have documented that stock market investors (Sloan (1996); Xie (2001)) as well as sophisticated bond market investors (Bhojraj and Swaminathan (2004)) do not seem to price poor accounting quality as reflected in accruals. In sharp contrast to these studies we find evidence in support of

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(Working Capital/ Total Assets) + 0.076 (Current Liabilities/ Current Assets) – 1.72 (1 if Total Liabilities > Total Assets, 0 otherwise) – 0.521 ((Net Income$_t$ - Net Income$_{t-1}$)/(| Net Income$_t$| + | Net Income$_{t-1}$|))

the banks being able to discern the true accounting quality of borrowers and incorporate loan terms, price and non-price terms, appropriately.

Our paper makes four contributions to the literature. First, by showing that banks consider the deviations between cash flows and earnings in pricing and structuring their contracts, we provide direct evidence supporting the specialness of financial intermediation. The financial intermediation literature has hitherto relied on indirect evidence supporting the specialness of banks. Second, we add to the growing body of evidence that investors misprice information in financial statements, by showing that some sophisticated investors (banks, in our case) properly use this information while structuring financial contracts. Third, we advance the explanation that our results support, and are consistent with, the notion of limited information as a source of risk – a view increasingly gaining currency in the asset pricing literature. Finally, we show how accounting quality has a direct and measurable impact on a firm's cost of capital.

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Appendix I: Definition of Variables

UAA1	Unsigned Abnormal Accruals computed using the Modifed-Jones model from Dechow, Sloan, and Sweeny (1995)
UAA2	Unsigned Abnormal Accuals computed using the methodology in Teoh, Wong, and Welch (1998)
UAA3	Unsigned Abnormal Accruals computed as the absolute residual from the regression of changes in working capital accruals on past present and future cash flow realizations as per Dechow and Dichev (2002) model
SAA1	Signed Abnormal Accruals computed using the Modifed-Jones model from Dechow, Sloan, and Sweeny (1995)
SAA2	Signed Abnormal Accuals computed using the methodology in Teoh, Wong, and Welch (1998)
SAA3	Signed Abnormal Accruals computed as the residual from the regression of changes in working capital accruals on past present and future cash flow realizations as per Dechow and Dichev (2002) model
Book Leverage	Long Term Debt (Compustat data item 9) divided by Total Assets (Compustat data item 6)
Log Assets	Log of Total Assets (Compustat data item 6)
Log Interest Coverage	Log of (1+ interest coverage), where interest coverage is measured as EBITDA (Compustat data item 13) divided by interest expense (Compustat data item 15)
Tangibility	Net PP&E (Compustat data item 8) divided by Total Assets (Compustat data item 6)
Current Ratio	Current Assets (Compustat data item 4) divided by Current Liabilities (Compustat data item 5)
Profitability	EBITDA (Compustat data item 13) divided by Total Assets (Compustat data item 6)
Market-to-Book	Market value of equity plus the book value of debt (Compustat data item 6 – Compustat data item 60 + Compustat data item 24 * Compustat data item25) divided by Total Assets (Compustat data item 6)
CFO volatility	Standard deviation of quarterly cash flow from operations (Δ Quarterly Compustat data item 108) over the 4 fiscal years prior to the loan year scaled by the total debt (Annual Compustat Data item 9 + data item 34)
Log Facility Size	Log of the loan amount obtained from the LPC database
Log Facility Maturity	Log of the maturity period of the bank loan obtained from the LPC database
AIS Drawn over LIBOR	All-in-Drawn Spread charged by the bank over LIBOR for the drawn portion of the loan facility obtained from the LPC database
Fraction Secured	Proportion of loans in the sample which were secured with collateral obtained from the LPC database
Fraction with Performance Pricing	Proportion of loans in the sample for which interest rates are determined using performance pricing obtained from the LPC database

Number of Lenders	Number of banks that are part of the loan syndicate for a given loan facility obtained from the LPC database
Number of facilities	Total number of loan facilities granted to each firm during our sample period obtained from the LPC database
Upfront Fees	One time fee, expressed as basis points of the loan, collected at the closing of the deal
Annual Fees	An annual charge, expressed in basis points of the loan, against the entire commitment amount
Secured Dummy	Dummy variable that takes on the value '1' if loan facility is secured with collateral and '0' otherwise
Loan Type Dummies	Dummy variable for each loan type - Term Loan, Revolver greater than 1 year, revolver less than 1 year, 364 day facility
Loan Purpose Dummies	Dummy variable for each loan purpose, including Debt repayment, Corporate Purposes, Working Capital
Year Dummies	Dummy variable for each year in the sample period.
Asset Maturity	$\frac{CA}{CA+PPE}*\frac{CA}{COGS}+\frac{PPE}{CA+PPE}*\frac{PPE}{Depreciation}$, as defined in Barclay and Smith (1995). CA = Current assets; PPE = Property, Plant and Equipment; COGS = Cost of goods sold;
Dummy for Regulated Industry	Dummy variable that takes on the value '1' for firms in the Utilities,…, industries and '0' otherwise
Capital Market Access	Dummy variable that measures access to public bond markets and takes on the value '1' if the firm has a credit rating and '0' otherwise
Loan Concentration	Dollar amount of the loan/(existing debt of the firm+dollar amount of the loan)
CFO	Annual cash flow from operations (Compustat data item 308)
Net Income before Extraordinary Items	Net Income (Compustat data item 18)
Shares	Shares outstanding (Compustat data item 25)
Dispersion 1	Quarterly analyst forecast dispersion scaled by the absolute value of the mean forecast obtained from the Zacks database
Dispersion 2	Quarterly analyst forecast dispersion scaled by the stock price at the start of the quarter obtained from the Zack database
Z-score	Altman's (1968) Z-Score computed as Z = 1.2 (working capital/total assets) + 1.4 (retained earnings/total assets) + 3.3 (EBIT/Total Assets) + 0.6 (Market value of equity/Book value of total liabilities)+ (Sales/Total Assets)
O-Score	Ohlson's (1980) O-Score is computed as O = -1.32 – 0.407 (Log Total Assets) + 6.03 (Total Liabilites/ Total Assets) – 1.43 (Working Capital/ Total Assets) + 0.076 (Current Liabilities/ Current Assets) – 1.72 (1 if Total Liabilities > Total Assets, 0 otherwise) – 0.521 ((Net Income$_t$ - Net Income$_{t-1}$)/(| Net Income$_t$| + | Net Income$_{t-1}$|))

Asset Beta	Unlevered beta for the firm computed as $\beta_A = ((1-\tau)(D/E)/(1+(1-\tau)(D/E))) * \beta_d + (1/(1+(1-\tau)(D/E))) * \beta_e$ Where D/E is total debt divided by market value of equity, β_d is estimated using the interest cost of the firm, and β_e is estimated using monthly stock returns of the prior 3 years
Rating Dummies	Dummy variable for each of the S&P debt ratings categories, including a dummy for firms that are not rated.

Table I

The overall sample contains 7334 loans obtained by 3082 firms over the period 1988-2001. The firm characteristics are obtained from Compustat and denote the firm variables from the fiscal year prior to the fiscal year in which the loan was obtained. The loan characteristics are from the Dealscan database provided by the Loan Pricing Corporation. Refer to Appendix I for definition of variables. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

Panel A: Loan-firm Characteristics

	N	Mean	Median	Std. Deviation
Book Leverage (Long Term Debt/ Assets)	7330	0.267	0.242	0.242
Log Assets	7334	5.676	5.587	1.899
Interest Coverage (EBITDA/Interest)	7236	23.8	4.2	420.2
Tangibility (Net PP&E/Assets)	7045	0.340	0.288	0.237
Current Ratio	6606	2.024	1.666	1.751
Profitability (EBITDA/Assets)	7038	0.111	0.123	0.147
Market-to-Book	6967	1.701	1.346	1.198
CFO Volatility/ Total Debt	5516	0.792	0.083	10.06

Panel B: Accounting Quality Metrics

	N	Mean	Median	Std. Deviation
UAA1	6961	0.139	0.067	0.226
UAA2	7197	0.080	0.038	0.118
UAA3	6151	0.066	0.035	0.090
SAA1	6961	0.004	0.000	0.224
SAA2	7197	0.030	0.009	0.126
SAA3	6151	0.018	0.004	0.102

Table I (continued)

Panel C: Mean Values by UAA1 Quintiles

	Low 1	2	3	4	High 5	T-test (1)-(5)
Book Leverage (Long Term Debt/ Assets)	0.276	0.277	0.255	0.249	0.249	2.57 ***
Log Assets	6.201	6.054	5.670	5.294	4.865	18.94 ***
Interest Coverage (EBITDA/Interest)	16.95	54.04	11.94	21.44	20.74	-0.61
Tangibility (Net PP&E/Assets)	0.366	0.360	0.347	0.318	0.314	5.71 ***
Current Ratio	1.916	1.951	2.019	1.996	2.247	-4.17 ***
Profitability (EBITDA/Assets)	0.126	0.125	0.124	0.109	0.072	7.81 ***
Market-to-Book	1.551	1.626	1.644	1.735	2.091	-9.78 ***
CFO Volatility/ Total Debt	0.388	0.550	0.657	1.749	0.815	-2.68 ***

Panel D: Loan Characteristics

	N	Mean	Median	Std. Deviation
Facility Size ($ mil.)	7334	177.5	50.0	449.3
Facility Maturity (months)	7070	46.7	38.0	144.2
AIS Drawn over LIBOR (b.p.)	7334	192.5	175.0	131.7
Fraction Secured	4853	0.774	1	0.42
Fraction with Performance Pricing	7202	0.350	0	0.48
Number of Lenders	7202	5.8	3.0	8.0
Number of Facilities per firm	3082	2.38	2.00	1.66
Upfront Fees	2259	53.7	37.5	55.9
Annual Fees	1960	19.4	12.5	23.2

Table II: Loan Terms across UAA Quintiles

The overall sample contains 7334 loans obtained by 3082 firms over the period 1988-2001. The loan characteristics are from the Dealscan database provided by the Loan Pricing Corporation. Refer to Appendix I for definition of variables.

	Low 1	2	3	4	High 5	T-test (1)-(5)	
UAA1 Quintiles	0.010	0.034	0.068	0.131	0.453	-46.72	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	160.4	173.2	182.7	215.4	240.3	-16.34	***
Facility Size ($ mil.)	237.8	222.3	186.9	130.3	103.3	8.59	***
Facility Maturity (months)	47.8	57.0	46.1	43.4	41.7	6.85	***
Fraction Secured	0.690	0.732	0.777	0.828	0.870	-9.74	***
Fraction with Performance Pricing	0.342	0.374	0.357	0.347	0.302	2.27	**
Number of Lenders	6.9	6.7	6.0	5.0	4.2	9.48	***
Upfront Fees	45.8	48.7	54.3	57.1	63.3	-4.66	***
Annual Fees	16.2	17.1	19.7	21.0	25.7	-5.72	***
UAA2 Quintiles	0.005	0.019	0.039	0.079	0.258	-59.5	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	155.3	178.2	185.9	199.1	242.2	-18.2	***
Facility Size ($ mil.)	273.6	213.9	206.6	111.9	82.8	10.7	***
Facility Maturity (months)	46.9	47.9	47.5	52.2	38.9	9.7	***
Fraction Secured	0.643	0.756	0.763	0.786	0.878	-12.8	***
Fraction with Performance Pricing	0.360	0.343	0.363	0.345	0.349	0.6	
Number of Lenders	7.7	6.6	6.5	4.4	3.9	12.6	***
Upfront Fees	49.3	51.3	51.7	50.8	62.1	-3.3	***
Annual Fees	17.5	18.8	17.4	20.4	24.6	-4.9	***
UAA3 Quintiles	0.005	0.018	0.036	0.067	0.205	-58.62	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	152.8	157.9	173.3	204.1	237.7	-16.41	***
Facility Size ($ mil.)	242.9	282.7	206.8	154.4	80.6	12.15	***
Facility Maturity (months)	46.2	47.8	47.2	53.9	40.2	6.49	***
Fraction Secured	0.664	0.690	0.727	0.798	0.860	-9.68	***
Fraction with Performance Pricing	0.354	0.369	0.376	0.362	0.355	-0.08	
Number of Lenders	7.5	7.4	6.6	5.4	3.9	11.74	***
Upfront Fees	48.9	41.5	47.1	59.3	57.3	-2.1	**
Annual Fees	16.1	17.6	17.2	21.9	26.3	-6.44	***

Table III

Panel A: Regression of All-in-Spread Drawn on UAA and Loan Terms

The sample consists of 7334 loans for which data was available on Compustat and Dealscan database and for which at least one of the UAA measures could be computed. The dependent variable is the All-in-Spread Drawn over LIBOR charged on the loan represented in basis points. Refer to Appendix I for definition of variables. The firm specific control variables are computed at the end of the fiscal year prior to the year in which the loan was obtained. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

Dependent Variable = AIS Drawn (in basis points)												
	(i)		(ii)		(iii)		(iv)		(v)		(vi)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality Variables												
UAA1	72.71	5.8 ***					61.55	4.6 ***				
UAA2			162.89	6.5 ***					110.28	3.9 ***		
UAA3					189.26	7.6 ***					104.24	3.7 ***
Firm Variables												
Book Leverage	52.21	2.4 **	52.54	2.6 **	49.56	2.2 **	15.26	0.9	17.34	1.0	14.66	0.9
Log Assets	-50.58	-31.5 ***	-50.02	-30.8 ***	-48.95	-30.3 ***	-24.53	-10.9 ***	-24.41	-10.7 ***	-23.79	-10.4 ***
Log Interest Coverage	-24.05	-8.3 ***	-25.05	-8.7 ***	-22.85	-7.6 ***	-16.68	-6.4 ***	-17.25	-6.6 ***	-15.33	-5.9 ***
Tangibility	-7.78	-0.9	11.25	1.3	3.57	0.4	-2.84	-0.3	10.85	1.2	-0.01	0.0
Current Ratio	-5.96	-4.6 ***	-6.06	-4.6 ***	-5.99	-4.3 ***	-8.17	-6.1 ***	-8.15	-6.0 ***	-8.05	-5.8 ***
Profitability	-104.30	-4.4 ***	-105.52	-4.3 ***	-116.62	-4.4 ***	-102.49	-5.1 ***	-102.10	-5.0 ***	-118.89	-5.6 ***
Market-to-Book	-5.90	-2.7 ***	-5.98	-2.8 ***	-7.32	-3.3 **	-3.37	-1.6 *	-3.22	-1.5 *	-4.49	-1.9 *
CFO Volatility/ Debt	0.37	3.0 ***	0.31	2.8 ***	0.18	1.6	0.20	2.1 *	0.14	1.6 *	0.05	0.7
Loan Variables												
Log Facility Size ($ mil.)	22.71	16.4 ***	22.51	16.5 ***	22.19	15.8 ***	7.34	3.7 ***	7.13	3.5 ***	7.49	3.7 ***
Log Facility Maturity (months)	12.21	3.9 ***	12.57	4.0 ***	12.37	3.8 ***	-10.09	-2.4 *	-9.99	-2.4 **	-10.50	-2.4 **
Secured Dummy							120.69	28.2 ***	119.68	28.0 ***	119.48	27.6 ***
Loan Type Dummies							Yes		Yes		Yes	
Loan Purpose Dummies							Yes		Yes		Yes	
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
N	4592		4552		4373		3160		3130		2979	
Adjusted R^2	0.773		0.773		0.770		0.854		0.853		0.855	

Table III (continued)

Panel B: Regression of All-in-Spread Drawn on UAA Quintiles

The sample consists of 7334 loans for which data was available on Compustat and Dealscan database and for which at least one of the UAA measures could be computed. The dependent variable is the All-in-Spread Drawn over LIBOR charged on the loan represented in basis points. Refer to Appendix I for definition of variables. The firm specific control variables are computed at the end of the fiscal year prior to the year in which the loan was obtained. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Dependent Variable = AIS Drawn (in basis points)					
	(i) UAA1		(ii) UAA2		(iii) UAA3	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality Variables						
Quintile1 dummy	292.89	7.7 ***	168.31	7.9 ***	28.23	3.0 ***
Quintile2 dummy	300.65	8.0 ***	183.11	8.6 ***	34.66	3.6 ***
Quintile3 dummy	299.61	7.9 ***	184.71	8.7 ***	34.13	3.6 ***
Quintile4 dummy	318.38	8.5 ***	182.55	8.6 ***	55.26	5.8 ***
Quintile5 dummy	321.81	8.6 ***	208.46	9.7 ***	64.14	6.7 ***
Firm Variables						
Book Leverage	49.64	2.4 **	48.95	2.4 **	55.25	2.6 ***
Log Assets	-39.12	-20.2 ***	-44.85	-26.4 ***	-49.90	-32.0 ***
Log Interest Coverage	-25.94	-9.4 ***	-26.29	-9.3 ***	-24.69	-8.5 ***
Tangibility	-5.54	-0.7	7.73	0.9	3.29	0.4
Current Ratio	-7.74	-5.8 ***	-7.69	-5.7 ***	-6.81	-5.1 ***
Profitability	-89.64	-3.9 ***	-97.91	-4.1 ***	-108.97	-4.5 ***
Market-to-Book	-6.37	-3.0 ***	-5.72	-2.6 ***	-5.38	-2.3 **
CFO Volatility/ Debt	0.34	2.9 ***	0.41	2.5 **	0.33	2.5 **
Loan Variables						
Log Facility Size ($ mil.)	6.88	3.0 ***	13.53	8.2 ***	21.48	15.8 ***
Log Facility Maturity (months)	4.78	1.5 *	9.06	2.9 ***	11.10	3.5 ***
Year Dummies	Yes		Yes		Yes	
N	4629		4629		4629	
Adjusted R^2	0.792		0.784		0.774	

Table IV

Panel A: Regression of Log Maturity on UAA

The sample consists of 7334 loans for which data was available on Compustat and Dealscan database and for which at least one of the UAA measures could be computed. The dependent variable is the log of the maturity of the loan. Refer to Appendix I for definition of variables. The firm specific control variables are computed at the end of the fiscal year prior to the year in which the loan was obtained. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

Dependent Variable = Log maturity												
	(i)		(ii)		(iii)		(iv)		(v)		(vi)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality												
UAA1	-0.14	-3.8 ***					-0.14	-3.75 ***				
UAA2			-0.40	-5.6 ***					-0.40	-5.5 ***		
UAA3					-0.41	-4.0 ***					-0.41	-4.0 ***
Firm Variables												
Log Assets	0.06	12.9 ***	0.06	12.2 ***	0.06	11.0 ***	0.06	11.1 ***	0.06	10.6 ***	0.06	9.7 ***
Market-to-Book	-0.02	-2.7 ***	-0.01	-2.1 **	-0.01	-0.7	-0.02	-2.7 **	-0.02	-2.2 **	-0.01	-0.8
Asset Maturity	0.01	4.0 ***	0.004	3.2 ***	0.004	2.8 ***	0.006	4.1 ***	0.004	3.3 ***	0.005	2.9 ***
Dummy for Regulated Industry	-0.15	-3.8 ***	-0.15	-3.7 ***	-0.14	-3.3 ***	-0.02	-0.3	-0.02	-0.4	-0.01	-0.2
Capital Market Access							0.01	0.7	0.01	0.6	0.01	0.4
Regulated * Capital Mkt Access							-0.30	-3.9 ***	-0.29	-3.7 ***	-0.26	-3.4 ***
Intercept	3.46	57.6 ***	3.50	57.3 ***	3.54	33.2 ***	3.45	56.8 ***	3.49	56.6 ***	3.54	32.9 ***
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
N	5969		5916		5156		5969		5916		5156	
Adjusted R^2	0.060		0.063		0.055		0.062		0.065		0.057	

Table IV (continued)

Panel B: Probit of the Likelihood of being a Secured loan on UAA

The sample consists of 7334 loans for which data was available on Compustat and Dealscan database and for which at least one of the UAA measures could be computed. The dependent variable is '1' when the loan is secured and '0' when unsecured. The dependent variable is the log of the maturity of the loan. Refer to Appendix I for definition of variables. The firm specific control variables are computed at the end of the fiscal year prior to the year in which the loan was obtained. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Dependent Variable = 1 if Loan is Secured, 0 if Unsecured					
	(i)		(ii)		(iii)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality						
UAA1	0.39	2.6 ***				
UAA2			1.40	5.2 ***		
UAA3					2.02	5.7 ***
Firm Variables						
Book Leverage (LT Debt/ Assets)	1.89	7.7 ***	1.90	7.9 ***	1.90	7.4 ***
Tangibility	-0.17	-1.6	-0.04	-0.4	-0.11	-1.0
Market-to-Book	-0.13	-6.2 ***	-0.13	-6.4 ***	-0.16	-6.7 ***
Loan Concentration	0.58	4.5 ***	0.53	4.1 ***	0.54	3.9 ***
Loan Variables						
Log Facility Size ($ mil.)	-0.44	-22.1 ***	-0.43	-21.7 ***	-0.44	-20.6 ***
Intercept	8.28	19.8 ***	8.07	19.0 ***	8.17	14.5 ***
Year Dummies	Yes		Yes		Yes	
N	4339		4305		3711	
Pseudo R^2	0.226		0.229		0.243	

Table V

Panel A: Mean Values by Signed Abnormal Accruals (SAA1) Quintiles

The overall sample contains 7334 loans obtained by 3082 firms over the period 1988-2001. The loan characteristics are from the Dealscan database provided by the Loan Pricing Corporation. Refer to Appendix I for definition of variables. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Low 1	2	3	4	High 5	T-test (1)-(5)
Book Leverage (Long Term Debt/ Assets)	0.273	0.276	0.277	0.255	0.226	4.35 ***
Log Assets	5.106	5.987	6.204	5.728	5.058	0.7
Interest Coverage (EBITDA/Interest)	15.133	47.292	16.899	19.993	25.973	-2.28 **
Tangibility (Net PP&E/Assets)	0.342	0.353	0.367	0.353	0.289	6.08 ***
Current Ratio	1.764	1.914	1.923	2.081	2.437	-9.08 ***
Profitability (EBITDA/Assets)	0.056	0.126	0.126	0.123	0.125	-9.87 ***
Market-to-Book	1.783	1.592	1.549	1.700	2.012	-3.92 ***
CFO Volatility/ Total Debt	1.518	0.392	0.387	0.809	1.120	0.56

Table V (continued)

Panel B: Loan Terms across SAA Quintiles

The overall sample contains 7334 loans obtained by 3082 firms over the period 1988-2001. The loan characteristics are from the Dealscan database provided by the Loan Pricing Corporation. Refer to Appendix I for definition of variables. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Low 1	2	3	4	High 5	T-test (1)-(5)	
SAA1 Quintiles	-0.261	-0.049	0.000	0.053	0.278	-63.55	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	241.8	181.1	160.3	172.4	216.3	4.97	***
Facility Size ($ mil.)	125.8	217.5	237.7	185.0	114.4	0.96	
Facility Maturity (months)	42.5	47.3	47.9	56.1	42.1	0.45	
Fraction Secured	0.869	0.752	0.689	0.762	0.828	2.59	***
Fraction with Performance Pricing	0.271	0.335	0.344	0.394	0.378	-6.04	***
Number of Lenders	5.0	6.5	6.9	6.0	4.3	2.34	**
Upfront Fees	66.7	54.8	45.8	48.1	53.4	3.78	***
Annual Fees	26.0	19.3	16.0	17.0	20.1	2.23	**
SAA2 Quintiles	-0.102	-0.015	0.010	0.045	0.212	-73.04	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	225.7	172.1	159.9	183.3	219.7	1.19	
Facility Size ($ mil.)	114.6	228.9	259.1	202.7	83.3	3.77	***
Facility Maturity (months)	43.2	47.2	47.8	46.6	48.9	-0.65	
Fraction Secured	0.834	0.712	0.676	0.770	0.842	-0.49	
Fraction with Performance Pricing	0.307	0.363	0.346	0.379	0.366	-3.35	***
Number of Lenders	4.6	6.7	7.4	6.4	3.9	3.00	***
Upfront Fees	63.6	48.4	51.1	48.0	53.3	2.84	***
Annual Fees	23.1	18.1	18.2	16.9	21.5	0.96	
SAA3 Quintiles	-0.096	-0.020	0.004	0.036	0.164	-71.12	***
Loan Terms							
AIS Drawn over LIBOR (Basis points)	226.3	165.4	152.2	170.8	211.4	2.69	***
Facility Size ($ mil.)	159.7	269.9	249.2	190.2	98.1	4.63	***
Facility Maturity (months)	42.2	49.4	45.5	45.5	52.8	-1.04	
Fraction Secured	0.846	0.732	0.650	0.699	0.823	1.27	
Fraction with Performance Pricing	0.309	0.363	0.357	0.385	0.403	-4.86	***
Number of Lenders	5.1	7.4	7.6	6.1	4.6	1.46	
Upfront Fees	67.4	46.4	47.7	43.0	49.6	4.14	***
Annual Fees	23.9	16.9	15.5	18.5	23.3	0.27	

Table V (continued)

Panel C: Regression of All-in-Spread Drawn on SAA

The sample consists of 7334 loans for which data was available on Compustat and Dealscan database and for which at least one of the SAA measures could be computed. The dependent variable is the All-in-Spread Drawn over LIBOR charged on the loan represented in basis points. Refer to Appendix I for definition of variables. The firm specific control variables are computed at the end of the fiscal year prior to the year in which the loan was obtained. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Dependent Variable = AIS Drawn Spread (in basis points)					
	(i)		(ii)		(iii)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality Variables						
Positive SAA1	92.61	6.0 ***				
Negative SAA1	-102.74	-5.2 ***				
Positive SAA2			162.98	5.9 ***		
Negative SAA2			-211.30	-5.0 ***		
Positive SAA3					191.98	6.7 ***
Negative SAA3					-312.23	-7.0 ***
Firm Variables						
Book Leverage	51.81	2.4 **	52.90	2.6 **	52.91	2.3 **
Log Assets	-50.24	-31.8 ***	-50.19	-31.4 ***	-48.76	-30.9 ***
Log Interest Coverage	-24.03	-8.2 ***	-24.98	-8.6 ***	-22.21	-7.2 ***
Tangibility	-7.34	-0.9	11.56	1.3	4.51	0.5
Current Ratio	-5.64	-4.4 ***	-5.95	-4.5 ***	-5.54	-4.0 ***
Profitability	-102.11	-4.4 ***	-102.45	-4.2 ***	-108.79	-4.1 ***
Market-to-Book	-6.24	-2.8 ***	-5.78	-2.7 ***	-7.14	-3.2 ***
CFO Volatility/ Debt	0.37	3.0	0.31	2.8 ***	0.19	1.8 *
Loan Variables						
Log Facility Size ($ mil.)	22.60	16.9 ***	22.66	17.0 ***	22.05	16.4 ***
Log Facility Maturity (months)	12.51	4.0 ***	12.65	4.0 ***	12.48	3.8 ***
Year Dummies	Yes		Yes		Yes	
N	4592		4552		4373	
Adjusted R^2	0.774		0.773		0.771	

Table VI

Panel A: Regression Results from Sub-samples and Fama-MacBeth Results

The sample consists of 7334 loans with financial and loan data available. The dependent variable is the All-in-Spread Drawn over LIBOR charged on the loan represented in basis points. In (i) the sample contains only one loan per firm year, specification (ii) includes only the first loans for all firms and specification (iii) reports the coefficients from a Fama-MacBeth style regression run annually on the sub-sample used in (i). Refer to Appendix I for definition of variables. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

Dependent Variable = AIS Drawn (in basis points)						
	(i) One Deal/ Firm year		(ii) First Deal for each firm		(iii) Fama-MacBeth Annual Regressions	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality Variables						
UAA1	66.66	4.8 ***	89.37	3.9 ***	46.22	3.4 ***
Firm Variables						
Book Leverage	37.83	1.8 *	20.74	1.0	69.72	3.7 **
Log Assets	-55.66	-31.0 ***	-56.85	-21.5 ***	-20.69	-8.9 ***
Log Interest Coverage	-23.64	-7.8 ***	-26.04	-7.8 ***	-31.99	-6.0 ***
Tangibility	-3.34	-0.4	-9.80	-0.7	-29.78	-2.3 **
Current Ratio	-4.85	-3.4 ***	-6.00	-3.4 ***	-11.92	-7.2 ***
Profitability	-126.83	-4.6 ***	-84.71	-2.8 ***	-68.80	-1.7 *
Market-to-Book	-5.36	-2.1 **	-6.57	-2.0 **	-6.18	-3.7 ***
CFO Volatility/ Debt	0.35	1.8 *	0.46	1.9 *	1.77	0.8
Loan Variables						
Log Facility Size ($ mil.)	29.63	19.7 ***	28.31	12.1 ***	-24.01	-7.8 ***
Log Facility Maturity (months)	-7.49	-1.9 *	-4.30	-0.8	-14.22	-3.7 ***
Year Dummies	Yes		Yes			
N	3306		1638			
Adjusted R^2	0.781		0.797			
Average N					299.5	
Average Adjusted R^2					0.521	

Table VI (continued)

Panel B: Simultaneous Estimation of AIS Drawn and Log Maturity

The sample consists of 7334 loans for which data was available on Compustat and Dealscan. The equation for AIS Drawn and Log Maturity are simultaneously estimated using a 3-stage least squares approach (3SLS). Refer to Appendix I for definition of variables. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

Dependent Variable =>	AIS Drawn		Log Maturity		AIS Drawn		Log Maturity		AIS Drawn		Log Maturity	
	(i)		(ii)		(i)		(ii)		(i)		(ii)	
	Coefficient	t-stat	Coefficien	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality												
UAA1	52.90	3.0 ***	-0.14	-3.7 ***								
UAA2					140.38	2.6 ***	-0.42	-5.6 ***				
UAA3									198.75	2.8 ***	-0.44	-4.5 ***
Firm Variables												
Book Leverage (LT Debt/ Assets)	67.56	1.8 *			80.95	1.8 *			66.19	1.0		
Log Assets	-34.70	-5.8 ***	0.06	14.4 ***	-38.22	-5.1 ***	0.06	13.4 ***	-34.80	-3.8 ***	0.06	12.0 ***
Log Interest Coverage	-22.02	-13.9 ***			-21.88	-12.0 ***			-21.84	-8.6 ***		
Tangibility (Net PP&E/Assets)	-11.27	-0.5			2.67	0.1			-13.93	-0.6		
Current Ratio	-6.08	-2.4 **			-5.34	-1.7 *			-8.07	-2.1 **		
Profitability (EBITDA/Assets)	-51.41	-1.4			-42.65	-1.0			-61.77	-1.3		
Market-to-Book	-5.49	-1.8 *	-0.02	-2.7 ***	-6.29	-1.8 *	-0.01	-2.2 **	-7.30	-2.5 **	-0.01	-0.7
Asset Maturity			0.004	4.0 **			0.003	3.3 ***			0.004	3.4 ***
Dummy for Regulated Industry			-0.14	-3.6 ***			-0.14	-3.5 ***			-0.13	-3.3 ***
Loan Variables												
Log Facility Size ($ mil.)	-16.44	-1.2			-11.85	-0.7			-18.30	-0.9		
Log Facility Maturity	103.52	0.9			107.35	0.8			168.31	1.0		
Intercept	330.79	1.7 *	3.46	70.1 ***	236.34	1.0	3.51	69.5 ***	78.68	0.25	3.56	34.9 ***
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
N	5898		5898		5846		5846		5094		5094	
Adjusted R^2	0.2228		0.0577		0.1856		0.0608		-0.143		0.0533	

Table VII

Panel A: Predictability of Cash Flow from Operations (CFO) across UAA Quintiles

Regression coefficients and the Adjusted R^2 are reported from the following regression that is run separately for each UAA quintile.

$(CFO/share)_t = \beta_1 (CFO/share)_{t-1} + \beta_2 (Net\ Income\ before\ Extraordinary\ Items/share)_{t-1}$ + Firm fixed effects

	b_1	T-stat	b_2	T-stat	Adjusted R^2
Quintile 1 (Low)	-0.05	-1.64	1.48	21.86	0.90
Quintile 2	-0.31	-15.64	0.52	13.57	0.61
Quintile 3	-0.55	-17.18	0.11	3.78	0.43
Quintile 4	-0.04	-5.99	-0.08	-4.71	-0.17
Quintile 5 (High)	-0.00001	-0.27	0.00001	0.210	0.11

Panel B: Analyst Forecast Dispersion across UAA Quintiles

Forecast dispersion is computed for all Compustat firms with quarterly analyst forecasts on Zacks database. Dispersion1 is measured as the forecast dispersion of analysts scaled by the absolute value of the mean forecast for, where the absolute mean forecast >$0.001. Dispersion2 is the forecast dispersion scaled by the quarter opening price, where price >=$5.

	Dispersion1	Dispersion2
Quintile 1 (Low)	0.4072	0.0034
Quintile 2	0.4493	0.0040
Quintile 3	0.5750	0.0042
Quintile 4	0.5881	0.0045
Quintile 5 (High)	0.7298	0.0044
T-stat (1)-(5)	-9.06***	-3.54***

Table VII (continued)

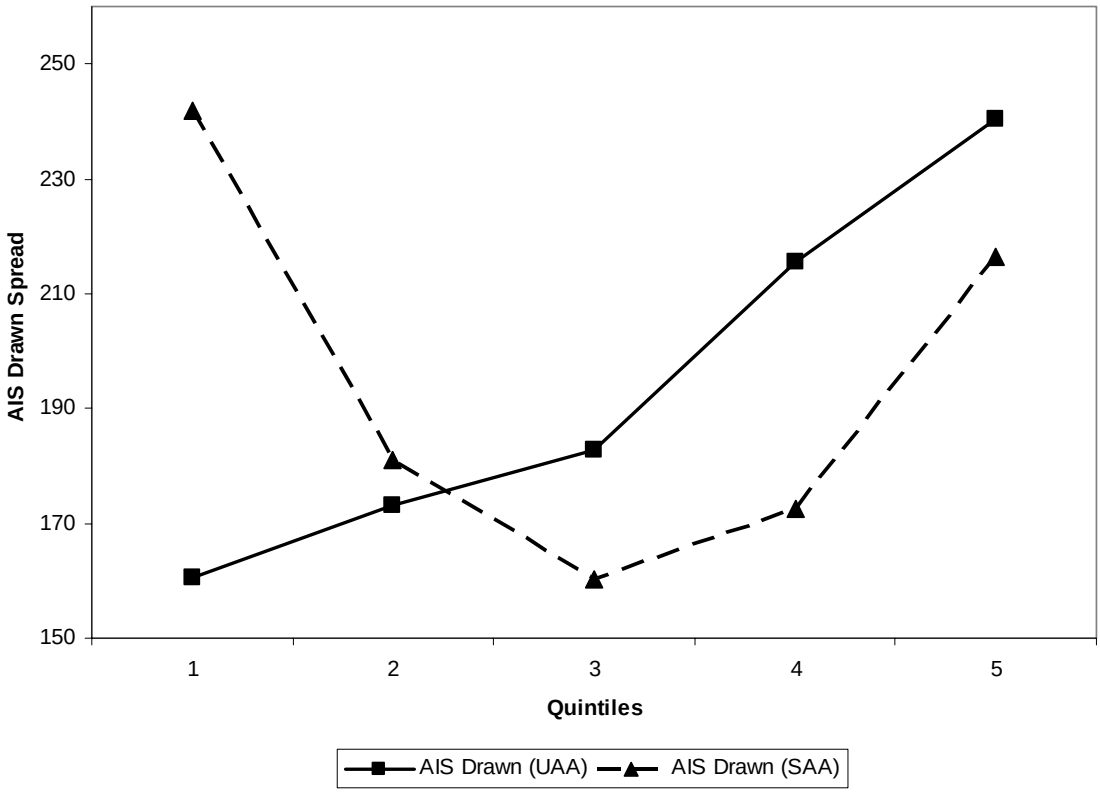
Panel C: Regression of All-in-Spread (AIS) on UAA1 Controlling for Alternate Measures of Loan Default Risk

The sample consists of 7334 loans for which data was available on Compustat and Dealscan. Refer to Appendix I for a description of variables. The t-statistics are computed using heteroskedasticity adjusted robust standard errors. Significance at the 1% level is denoted as ***, 5% level as ** and 10% level as *.

	Dependent Variable = AIS Drawn (in basis points)									
	(i)		(ii)		(iii)		(iv)		(v)	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
Accounting Quality Variables										
UAA1	74.32	5.7 ***	72.47	5.7 ***	67.62	5.3 ***	67.62	5.9 ***	72.00	6.0 ***
Firm Variables										
Z-Score	-10.19	-5.6 ***	-15.45	-10.8 ***						
Z-Score Squared			-1.48	-7.8 ***						
O-Score					15.95	9.4 ***				
Asset Beta							11.14	3.9 ***		
Rating Dummies									Yes	
Book Leverage	75.10	2.6 **	79.49	4.7 ***	3.99	0.1	99.38	8.6 ***	36.59	1.9 *
Log Assets	-53.04	-32.8 ***	-56.05	-35.3 ***	-44.24	-27.2 ***	-51.88	-30.7 ***	-36.08	-17.4 ***
Interest Coverage							-20.05	-6.8 ***	-25.68	-9.8 ***
Tangibility	-26.82	-2.8 ***	-42.19	-5.1 ***	3.75	0.4	-19.41	-2.3 **	-9.11	-1.1
Current Ratio	-6.30	-4.4 ***	-6.84	-5.0 ***	1.21	0.8	-8.15	-5.3 ***	-8.88	-6.8 ***
Profitability							-131.25	-4.3 ***	-94.63	-4.3 ***
Market-to-Book	-13.74	-5.7 ***	-9.72	-4.7 ***	-12.10	-5.3 ***	-5.88	-2.3 **	-5.15	-2.5 **
CFO Volatility/ Debt	0.45	3.8 ***	0.52	4.9 ***	0.28	2.3 **	0.38	2.9 ***	0.36	3.0 ***
Loan Variables										
Log Facility Size ($ mil.)	22.75	16.0 ***	24.90	18.0 ***	18.96	14.2 ***	23.49	16.8 ***	12.88	5.9 ***
Log Facility Maturity (months)	9.84	2.9 ***	8.81	2.8 ***	11.73	3.5 ***	8.41	2.7 ***	6.55	2.2 **
Year Dummies	Yes		Yes		Yes		Yes		Yes	
N	4556		4556		4601		3892		4592	
Adjusted R^2	0.758		0.767		0.769		0.769		0.779	

Figure 1

Loan Spreads across Quintiles of Signed Abnormal Accruals (SAA) and Unsigned Abnormal Accruals (UAA)



Refer to Appendix I for a description of the variables