Corporate Governance, Information Opaqueness, and the Perceived Value of Bank Loans

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Abstract

We extend the literature on the wealth effects of bank loan announcements by examining the association between these wealth effects and the quality of governance of the borrowers and the opaqueness of the information market for the borrower's stock. Using an extensive sample of over 1000 commercial loan announcements over a period of more than 20 years, we find that loan announcement returns are more likely to be positive for firms with weak corporate governance, a result that is consistent with the argument that banks are substitute monitors for good governance for borrowers. We also find that bank loan announcements are more likely to have positive wealth effects for firms that are informationally opaque. The relations between loan announcement returns, borrower governance, and borrower information opaqueness appear to have changed in recent years, a result that is consistent with the evidence presented by Fields, Fraser, Berry, and Byers (2006) that the positive response to loan announcements has decreased over time.

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1. Introduction

Previous research (James (1987) and Lummer and McConnell (1989)) provides evidence that announcements of bank loan agreements produce positive excess returns to borrowers. These positive borrower wealth effects appear to exist whether the lender is a commercial bank or a non-bank lender (Billett, Flannery, and Garfinkel (1995) and Preece and Mullineaux (1994)), though they appear to differ considerably for borrowers with different financial characteristics. For example, loan announcement returns appear to be affected by the size of the borrower, the credit worthiness of the borrower, the syndication characteristics of the loan, as well as by other characteristics of the borrower and the lender. Yet, to this point, none of the prior literature has examined the influence of the quality of borrower governance and borrower informational opaqueness on the perceived benefits of bank loans. A bank loan has the potential to be value enhancing for the borrower if the bank provides an important monitoring function for the borrower, a characteristic that is most relevant for borrowers with poor corporate governance. Similarly, the potential exists for borrowers with informational opaqueness to benefit by using bank loans as vehicles to convey information to the market. In these cases, wealth gains to bank borrowers at the announcement of a loan should be a function both of the perceived incremental change in monitoring brought about by the lending bank, and by the enhancement of the information environment surrounding these borrowers.

We examine market reactions to bank loan announcements for a sample of over 1000 announcements over the period from 1980-2003. We examine the relation between the wealth effects of bank loan announcements and borrower governance mechanisms such as the presence

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of large, unaffiliated blockholders, share ownership by officers and directors, board of director composition, ownership by institutional investors, and CEO pay structure. We find that the wealth effects of loan announcements are greater for borrowers with weak corporate governance structures, a result that is consistent with the hypothesis that bank lenders are substitute monitors for an effective borrower corporate governance structure. Specifically, we find that borrowers without independent boards of directors, with low levels of officer and director ownership, and with low or non-existent options-based incentive compensation for their CEOs have the most positive share price responses to the announcements of bank loans.

We also examine the influence of a variety of information opaqueness variables including the average bid-ask spread, volume, number of trades, trade size prior to the announcement, average number of analysts following the firm, standard deviation of forecasts, and analyst forecast errors, as well as the existence of split bond ratings, on the stock price reaction to bank loan announcements. We find that few of these variables are related to how well the market receives the news of a bank loan, with the primary significant relation being with the percentage by which analyst forecasts deviate from actual earnings per share. We interpret these results as suggesting some effect, though a modest one, of information opaqueness on loan announcement returns.

Following the evidence of Fields et al. (2006) that the positive loan announcements have diminished over time, we also explore potential trends in the relations between announcement returns and both governance and informational opaqueness variables. Although the relation between officer and director ownership, board composition, CEO incentive-based pay, and the percentage of analyst forecast error and announcement period abnormal returns is significant in the years prior to 2001, no such relations exist in the last few years of our sample. This evidence

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suggests that the Fields et al (2006) finding that announcement period returns have disappeared in recent years may be due to not only informational transparency for all firms in the market (as they suggest), but also to a diminished monitoring and information conduit roles for bank loans.

2. Related Literature

Our study is related to three major areas of research: the uniqueness of banks as monitors/screeners, corporate governance, and information opacity. We focus on the interaction of these areas by examining the reaction of bank loan announcements for firms with varying corporate governance characteristics and with different degrees of opaqueness.

2.1 Bank uniqueness and loan announcements

Studies that examine the economic effects of the announcement of loan agreements between firms and banks provide empirical evidence of bank uniqueness. Mikkelson and Partch (1986) and James (1987) were the first to illustrate the positive announcement effects for bank loans. This positive return contrasts with the reaction to the issuance of other securities in the capital markets, which have abnormal returns that are either non-positive such as public debt (James (1987)) or, in the case of equity-related instruments, significantly negative (Smith (1986)). Subsequent researchers have expanded on these studies by examining the borrower, lender, and loan characteristics that help explain the direction and magnitude of the abnormal returns to bank loans announcements. For example, Lummer and McConnell (1989) classify the loans in their sample as either new loans or loan renewals. They find that the abnormal returns accrue only to loan renewals and not to new loans, consistent with the view that the capital markets don't place a value on the bank's initial contact with the lender, but rather that the

valuable monitoring activity takes place over time. Several later papers fail to find this relationship. Billett, Flannery, and Garfinkel (1995), Slovin, Johnson, and Glascock (1992), and Hadlock and James (2000) find no significant differences in the abnormal returns for loan initiation and loan renewals.

The empirical evidence strongly suggests that banks are unique in some way, suggesting that banks provide services that are not easily replicated by the capital markets (Gorton and Winton (2002)). There are several theories put forth to try to explain the "specialness" of banks. Our paper relates to two of the major theories: banks as delegated monitors and banks as producers of information. These theories are not mutually exclusive, and much of the prior theoretical and empirical research concerns both theories. The concept of banks as delegated monitors was first offered by Diamond (1984). This theory proposes that since monitoring is costly, it is efficient to delegate the task of monitoring to a bank, which is a specialized agent with the ability to produce information about the borrower. Additional theoretical papers that study banks as delegated monitors address the advantages of bank monitoring through loan relationships, such as how bank loans and relationships enhance economic efficiency by lowering the aggregate costs of the monitoring of borrowing firms (Seward (1990), Gorton and Kahn (2000)). Other advantages of bank relationships include the ability to renegotiate covenants (Berlin and Mester (1992)), lower costs (Boot, Greenbaum, and Thakor (1993)), greater access to credit (Petersen and Rajan (1994)), and lower interest rates (Berger and Udell (1995)). Alternatively, several studies produce models that address potential disadvantages to bank monitoring such as the hold-up problem and winner's curse (Sharpe (1990), Rajan (1992)) and dealing with a distressed bank (Detragiache, Garella, and Guiso (2000)).

Another approach to explaining the special role of financial intermediation relates to the ability of banks to produce information. Leyland and Pyle (1977) and Campbell and Kracaw (1980) argue that financial intermediaries exist to produce information, and can do so more efficiently than securities markets. Additional theoretical models by Ramakrishnan and Thakor (1984), Besannko and Kanatas (1990), and Allen (1990) examine the intermediary's role in information production. Boyd and Prescott (1986) and Berlin and Loeys (1988) develop models that show that, in equilibrium, bank loans convey differing information depending on the assessment of firm quality by non-bank indicators. Best and Zhang (1993) examine this issue empirically and find that bank loans convey more information when the borrowing firm suffers from higher information asymmetry as reflected by analysts' earnings forecast errors and non-positive forecast revisions. Two other papers show that borrower characteristics related to information availability and reliability affect loan announcement returns. Slovin, Johnson, and Glascock (1992) find that borrower returns are more important for smaller firms. Since less information is available about these firms, they receive a greater benefit from bank monitoring and screening. Lender characteristics also appear to be important. Billett, Flannery, and Garfinkel (1995) provide evidence that the market reaction to loan announcements is dependent on the identity of the lender. They find that higher-quality lenders (defined by bond rating) are associated with larger abnormal borrower returns for loan announcements.

Since our paper is most closely related to empirical studies on the economic effects of loan announcements, we structure our analysis in a way that is similar to James (1987), Lummer and McConnell (1989), Best and Zhang (1992), Billet, et al. (1995), and Fields, et al. (2006). The difference is that our study employs a robust set of variables from the corporate governance

and information opaqueness literatures in an effort to more fully understand the role of banks in monitoring and screening borrowers.

2.2 Monitoring and Corporate Governance

If banks are effective as delegated monitors then their role in the governance of firms should be relevant to investors. Our paper is related to studies in the corporate governance literature that examine the relations between governance characteristics and firm performance and value. A number of studies have examined whether firm value and performance are affected by board structure or ownership structure. The evidence is mixed and often contradictory, a result that may reflect the inherent endogeneity of the variables used in the empirical analyses. Baysinger and Butler (1985) and Hermalin and Weisbach (1991) find that board composition and firm performance are not closely related. In contrast, Rosenstein and Wyatt (1990) find that firm value is affected by the proportion of outside directors by finding a positive stock price reaction when a new outside director is announced. Byrd and Hickman (1992) find that when firms make tender offer bids, firms where outside directors hold at least half of the board seats experience a higher announcement return than other bidders. Yermack (1996) documents an inverse relation between board size and firm value and performance.

Previous studies have also examined the association between ownership structure and firm performance and value. Morck, Shleifer, and Vishny (1988) find that increased inside ownership increases firm value due to incentive alignment. As the inside ownership continues to increase, firm value falls due to the entrenchment effect associated with insider voting. This is consistent with the evidence in McConnell and Servaes (1990) who show a positive relationship between managerial equity ownership and firm value as long as the total proportion is below

50%. This relationship appears to hold even at very low levels of ownership: Core and Larcker (2002) find that when such firms adopt plans requiring a minimum managerial ownership the firm experiences an improvement in performance. Shivdasani (1993) shows that firms are more likely to be targets of hostile takeovers when outside directors hold less equity in the firms, when they serve on fewer boards, and when the firms have unaffiliated outside blockholders. Holthausen and Larcker (1996) examine the initial public offerings of firms that had previously been taken private in a leveraged buyout. They find that subsequent performance is positively related to the change in the equity stake of large non-management investors and managers.

Additional studies have examined the relation between ownership structure and CEO compensation, performance, and turnover. Holderness and Sheehan (1988) find that managers who are majority shareholders receive higher salaries than other firm officers. Alternatively, Lambert, Larcker, and Weigelt (1993) find that CEO compensation and CEO equity ownership are inversely related in the presence of an insider with a significant equity stake. Core, Holthausen, and Larcker (1999) find that CEOs earn greater compensation when governance structures are weak.

Other studies examine the relation between corporate governance and value in an international context. Kang and Shivdasani (1996) examine Japanese corporate governance mechanisms in terms of management turnover. They find that announcement returns are greater for forced turnovers and when the successors are outsiders. They conclude that the Japanese governance system is consistent with value maximization. Mitton (2002) examines East Asian firms during the financial crisis of the late 1990s and finds that firms with higher outside ownership and better transparency experienced significantly better stock price performance. While Gompers, Ishii, and Metrick (2003) find a positive relation between strong corporate

governance and a host of financial performance measures in U.S. firms. Black, Jang, and Kim (1996) find similar results for firms in Korea, suggesting a causal relation between governance and share prices in emerging markets. This is consistent with the results of Baek, Kang, and Park (2004) who find that Korean firms in the 1997 crisis fared better when they had higher ownership concentration from unaffiliated foreign investors and better disclosure quality. Similarly, Lemmon and Lins (2003) find that East Asian firms in which management has a high degree of control but low ownership have significantly worse performance than other firms.

Our study focuses on the relation between banks and the corporate governance of U.S. firms. While this area has not had much research attention, several studies have examined the role of banks in the corporate governance of Asian firms. These firms operate in a bank-centered governance system. These studies focus on the effect on the borrowing firm when the main bank experiences adverse shocks. Consistent with the results of the study by Slovin, Sushka, and Pelonchek (1993) who found that borrowers from Continental Illinois suffered a loss of value when the bank failed in 1984, Kang and Stulz (2000), Bae, Kang, and Lim (2002) and Baek, Kang, and Park (2004) find that client firms in Japan and Korea, respectively, are adversely affected when the main bank suffers.

In this study we use variables that are consistent with those used in previous empirical studies. We include board characteristics such as board size, the number of independent, inside, and 'grey' directors (Brickley, Coles, and Terry (1992)). We include ownership variables such as officer and director ownership, block ownership, and institutional ownership. Finally, we also include CEO compensation data.

2.3 Opaqueness and Transparency

An important problem in corporate finance concerns asymmetry in the availability of information for insiders and outside investors. A number of studies have shown the benefits of increased disclosure (e.g. Diamond (1985), Diamond and Verrecchia (1992)). The special role banks play as producers of information about borrowers is closely related to studies of information opaqueness. Specialized outside monitors such as banks, bond rating agencies, underwriters, and auditors can reduce this asymmetry by devoting specialized resources to the information problems (DeYoung, Flannery, Lang, and Sorescu (1998), Hadlock and James (2002)). Lang and Lundolm (1996) find that firms with more information disclosure as measured by ratings from the Financial Analysts Foundation have a larger analyst following, less dispersion among individual analysts forecasts, and less volatility in forecast revisions.

Bank lending relationships have been shown to help overcome the information asymmetry problem (Boot (1991)). Empirical studies indicate that the value of the banking relationship is related to the degree of asymmetry. Best and Zhang (1993) find evidence that banks produce more useful information when borrowing firms have more information asymmetry. They use noisy signals from analyst forecasts as an indicator of less-reliable information.

Analyst forecast data are well established as indicators of information asymmetry (e.g. see Healy and Palepu (2001), Krishnaswamy and Subramaniam (1999), and Thomas (2002) who use forecast errors, dispersion among forecasts, revaluations, and forecast accuracy as determinants of asymmetry.) In addition to analyst forecasts, firm size is also used as a proxy for the degree of information asymmetry. Slovin, Johnson, and Glascock (1992) find that bank loans provide more value for smaller, less prestigious firms.

Recent studies have shown that improvements in the availability of information have increased the transparency of information. Petersen and Rajan (2002) study bank lending to small firms and find that the greater use of information technology reduces the importance of borrower-lender proximity. The reduction in information opaqueness allows lending to firms that would have been shunned in the past. Fields, Fraser, Berry, and Byers (2006) find evidence that the general increase in information availability in recent years has reduced the importance of the banking relationship to large firms.

In this study, we draw upon the opaqueness measures employed by Flannery, Kwan, and Nimalendran (2004) who use market microstructure properties of banking firms' stock as well as analyst forecasts as proxies for a firm's information opaqueness. These variables include bid-ask spreads, trading activity in terms of volume and number of trades, and return volatility. We also include indicators of information opacity suggested by other studies such as bond rating information (Morgan (2002)) as well as traditional proxies for asymmetry such as firm size, analyst following, and capital structure.

The three major areas of research spanned by this study are linked by the special role banks play in monitoring and screening borrowers. Consistent with the delegated monitor role of banks, we propose that a bank loan to a firm with a weak corporate governance structure (i.e. a weak monitoring regime) would provide a stronger signal to the capital markets than a similar loan to a firm with robust corporate governance. Likewise, the special role banks play as producers of information about borrowers is closely related to studies of information opaqueness. We expect that the announcement of a bank loan to firms with greater information opacity would send a stronger signal to market participants.

3.   Sample Selection and Characteristics

We use the sample provided by Fields et al. (2006) for the time period from 1980 through

2003.   The sample of loan announcements is identified by examining press releases obtained

from searching Lexis/Nexis using the following key words: bank loan, line of credit, credit

agreement, or credit facility. We review each announcing firm's press releases over a 5-day

period from two days prior to the loan announcement through two days after the loan

announcement. We exclude any announcements reflecting 1) a non-bank lending agreement, 2)

borrowers that are not U.S. firms, 3) borrowers for whom the loan contributes to a merger or

acquisition, and 4) borrowers for whom the loan is part of a bankruptcy agreement. The press

releases are then filtered to eliminate contaminating information such as earnings or dividend

announcements made by the borrower. To be included in the sample, firms must have data

available on CRSP.   Further, we exclude all firms with stock prices below $1 at the

announcement.

3.1   Summary Characteristics

Table 1 provides descriptive information on the financial characteristics for the borrowers

in the sample. The median loan size is $25 million, which represents slightly more than 10% of

the median total assets of the borrower.   Slovin, Johnson, and Glascock (1992), who find that

wealth effects are limited to small firms, report median loan size for small firms of $22.5 million

(similar to our firm's loans) and $104.0 million for large firms. This suggests that our sample

may best be characterized as one of relatively small firms, though a comparison of the median

with the mean values for the loan size and total assets of the borrower indicates that we have

some quite large firms in the sample. The loan is clearly important in the capital structure of the

borrowers in our sample, as evaluated by the debt ratio of the borrower as of the end of the year prior to the loan announcement.

[table 1 about here]

Billett, Flannery, and Garfinkel (1995) use borrower profitability, as measured by operating income before depreciation and extraordinary items, as a fraction of total assets as a proxy for the borrower's creditworthiness. We use the same measure of profitability, and find (in Table 1) that the median ROA for our firms is 11.6% and mean ROA is only slightly different, at 10.5%. These ratios are very similar to those reported by Billett, Flannery, and Garfinkel, who report a mean value of 10.3% and a median value of 11.3%. They also use the ratio of the market value of equity to its book value as a proxy for the growth options available to the borrowers and the run-up in stock price prior to the loan announcement as an indicator of whether the borrowers had recently released good news (Best and Zhang (1993) use a similar variable). Table 1 reports a median market to book ratio of 1.29, a value very close to Billett, Flannery, and Garfinkel's reported mean value of 1.35. However, our mean market to book value of 1.6 indicates that a few firms in our sample have very high market to book ratios. Table 1 also indicates no evidence of a run-up prior to the loan announcement. Indeed, the pre-event run-up is slightly negative, a result that is consistent with that reported by Billett, Flannery, and Garfinkel. Billett, Flannery, and Garfinkel (1995). We use the standard deviation of stock returns prior to the loan announcement as a proxy for the riskiness of the borrower. Our median standard deviation is 3.32, which is comparable to the mean value of 3.10% reported by Billett, Flannery, and Garfinkel.

Most of the loan announcements for this sample provide very limited information on the characteristics of the loans themselves. We are, however, able to tell whether the loan is new or

is a renewal. This new/renewal status of the loan is particularly important in view of Lummer

and McConnell's (1989) evidence that positive abnormal returns are associated with loan

renewal announcements and with Fields et al.'s (2006) evidence that only renewals in the 1980s

induced positive announcement period returns. Renewal announcements include words such as

"renewal", "replace", "expand", or "extend" and discuss aspects of the previous agreement.

New loan announcements often include statements regarding the firm's appreciation of its new

relationship with the lending bank(s). In the absence of wording indicating that the loan is a

renewal, the announcement is classified as new. The percentage of our sample (not shown in the

table) that is renewals is about 55%. Lummer and McConnell report that 49% of their sample

consists of loan renewals.

3.2. Corporate Governance

We evaluate the quality of corporate governance of the borrowers by examining the

following variables: board size, board composition, ownership by officers and directors,

ownership by 5% blockholders (affiliated and unaffiliated), ownership by institutions, and CEO

cash compensation and percentage of incentive-based compensation. Proxy statements are used

to extract most of the governance data for borrowers prior to their loan announcement dates (but

no more than 18 months prior to the announcement). Ownership of 5% and greater blockholders

is extracted from the Blockholders database on WRDS, and 13f institutional ownership is

extracted from Thompson Financial (CDA/Spectrum34) on WRDS. CEO option pay

components are taken from proxy statements, and the value of the options-based pay is

calculated using a conventional Black Scholes (1973) options pricing model (with additional data

available from CRSP, Compustat, and the Federal Reserve Website). As pointed out previously,

we hypothesize that bank loans may be less important (due to less need for bank monitoring) for

firms with "good" governance. As a result we would expect abnormal returns resulting from bank loan announcements to be less positive if firms have smaller boards, independent director dominated boards, substantial share ownership by officers and directors, substantial large block ownership, large institutional share ownership, and if CEOs are well-paid and are compensated with options based pay schemes.

[table 2 about here]

Table 2 provides summary statistics on the corporate governance characteristics of the sample borrowers. Our sample firms have 7 (median) members on their boards, though a few have much larger boards. We classify board members as inside, outside, or "grey." Inside directors are those with direct ties to the firm (typically, current employees of the firm). Grey directors have indirect ties to the firm that make their classification as true outsiders suspect. For example, we classify former employees of the firm and those with business interests with the firm as grey directors. All other directors, those in which we are most interested, are considered independent outside directors. As shown in Table 2, outside directors represent 42% of the boards, while "grey" directors account for 18%. The compositions of these boards changed substantially over time, with more boards dominated by independent directors later in our sample period (not shown in table 2). One possible explanation for the changes we observe could be a natural trend toward more outside directors and smaller boards followed by corporate scandals. Additionally, S.E.C. and NYSE guidelines establishing the need for greater representation by outsiders on the board to help prevent further incidences of corporate fraud were in place 2002.

Table 2 also shows the ownership by officers and directors, by 5% blockholders, and by institutional investors. Officers and directors held 15.5% (median) of the stock of the firms in our sample. Officer and directors held a much larger share of the stock in some firms, so that the

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mean value is 22.0%. Blockholders also are major holders of our sample firms' shares, with 5% and greater blockholders owning 33.3% (median) of the outstanding stock, with roughly 1/3 of the blocks held by unaffiliated blockholders. Institutions held almost 40% (median) of the stock, but the institutional shares variable and the 5% block variables are not mutually exclusive categories. CEO cash based compensation was $408.8 thousand. The median firm had no incentive-based compensation for its CEO, though some firms have substantial incentive-based compensation programs for their CEOs.

3.3   Borrower Informational Opaqueness

As pointed out by Fields et al. (2006) the information environment in markets in general has changed dramatically over the sample period 1980 through 2003. If banks previously provided information advantages for borrowing firms, these advantages as a general rule would be diminished by the greater information available for almost all firms and to almost any party in the economy afforded by such enhanced information disseminating tools as the internet. However, in the cross section, some informational opaqueness differences may remain despite the trend toward informational transparency. We expect that the wealth effects of bank loan announcements for borrowers would be greatest in those cases in which information on the quality of the financial position of the borrower remains difficult to obtain, costly, and/or of questionable reliability. In these situations of high informational opaqueness, the bank loan announcement provides additional information to external investors about the meaningfulness of the available data on the financial position of the borrower. In contrast, for firms in which there is a substantial amount of high quality information readily available at low cost, the additional information added by the bank loan announcement is of limited value and we would expect little if any loan announcement response.

We explore the importance of variations in the informational opaqueness of the borrowers by gathering several opaqueness variables for our borrowers. We use TAQ and ISSM to collect average volume, average number of trades, average trade size, and average spread (bid-ask) for the quarter prior to the loan announcement (beginning at the first of the loan announcement month and moving back one quarter in time). ISSM data are available from 1983 to 1993, with data from 1983 though 1987 available only for NYSE firms. TAQ data are available from 1987 to the present. Unfortunately, data for opaqueness variables using ISSM/TAQ data are missing for many of our firms during the time period when loan announcement period returns (according to Fields et al. (2006)) were most prevalent. We use I/B/E/S to collect data on analysts forecasts of borrower annual EPS for the year prior to the loan announcements. We create a series of variables from the I/B/E/S data including the number of analysts following the borrower, the standard deviation of analysts forecasts, and the mean and median analyst forecast errors (both in absolute terms and as a fraction of the forecast). While I/B/E/S data are available for all years in our sample period, not all of our firms have an analyst following. We determine whether borrowers have Standard and Poor's and/or Moody's rated debt. Compustat has available S&P debt ratings as early as 1986, but for years prior to 1986 we hand collect S&P debt ratings from the S&P Bond Guide. We hand collect Moody's debt ratings for all data years from the Moody's Bond Guide. We create several measures from the debt ratings including whether the firm has rated debt for either or both debt rating agencies, whether the bond ratings are the same for both ratings agencies, and whether the ratings are either both investment grade or both non-investment grade rated by the agencies. We conjecture that firms have greater informational opaqueness if they have a lower volume of shares traded, if they have fewer trades overall, if the average trade size is small, and if the stock has a high spread between

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the bid price and the ask price. We also conjecture that firms have greater informational

opaqueness if they are followed by fewer analysts, or have EPS forecasts that are more volatile

across analysts or are less accurate. Additionally, we believe that firms with split bond ratings

may have greater informational opaqueness.

[table 3 about here]

Table 3 provides descriptive statistics for the many informational opaqueness variables

for our sample of firms. Given that we do have some large firms in our sample, and that data

are more likely to be available for larger firms, it is not surprising that the total number of shares

traded over the quarter is large (median of 3,853,150), that the number of trades per quarter per

firm is also large (median of 2372), and that the bid-ask spread is a relatively low 0.321.

However, comparing the mean values of these variables with their medians reveals that there are

a number of firms within the sample that have quite different trading characteristics. For

example, the mean spread between bid and ask is 3.42 (compared to a median of 0.321). Similar

patterns exist for the other opaqueness variables. For example, the median analyst forecast error

is relatively small, but the mean value for this variable is quite large. Also, there is frequently a

difference in the bond ratings between Moody's and Standard and Poor's unless we measure the

difference in investment grade/non-investment grade only rather than in the very fine gradations

used by the debt rating agencies.

4.   Empirical Evidence

Tables 4, 5, and 6 provide the results of a number of alternate specifications of an

ordinary least squares regression model with the abnormal returns associated with bank loan

announcements as the dependent variable. We divide the analysis into governance models (table

4), opaqueness models (Table 5), and models incorporating the significant variables in both the

governance and opaqueness tables in addition to a set of time period regressions (table 6).

Because we consider so many borrower characteristics and measures of governance and of

informational opaqueness we begin by examining some simple correlations between the loan

announcement abnormal returns and the variables of interest (not reported in table form). We

find that several of the firm characteristics found in Table 1 are correlated with bank loan

announcements abnormal returns. These variables have also been found to be important

determinants of abnormal returns in prior loan announcement studies. Specifically, we find that

larger firms (measured by both total assets and by the market value of equity) have lower

abnormal returns, consistent with Slovin, Johnson, and Pelonchek (1992). Additionally, we find,

according to our univariate analysis, that borrower ROA, the debt ratio, and the standard

deviation of stock returns as well as the year of the announcement are correlated with abnormal

returns. That is, we find that borrower size, profitability, risk, and the time period of the

announcement are related to the announcement period returns. Therefore, in all of the initial

models we include the aforementioned control variables (including inflation-adjusted log

versions of either total assets or market value of equity).

[table 4 about here]

Table 4 provides the results of regressing the abnormal loan announcement returns on a

number of corporate governance variables as well as the control variables.   We experiment with

all of the governance variables to determine which of the variables, if any, impact the

stockholders' reactions to loan announcements. The evidence from Table 4 suggests that the

abnormal returns associated with loan announcements reflect the importance of a number of

corporate governance variables.   In particular, loan announcement abnormal returns are

significantly, negatively related to the degree to which the board of directors is composed of

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outside, independent directors.   As expected and consistent with the argument that banks are alternate monitors to internal corporate governance, loan announcement abnormal returns are smaller if the borrower has a board dominated by independent directors. This suggests that the stock prices of these firms benefit less than more poorly governed firms without independent boards. These results are also consistent with studies which show that board composition matters (e.g. Rosenstein and Wyatt (1990), Byrd and Hickman (1992), and Brickley, Coles, and Terry (1994)). We also find that, loan announcement abnormal returns are higher if officers and directors hold less stock, again presumably because these firms have managers whose interests are less aligned with their shareholders, and thus the need for and appreciation of bank monitoring is greater. These results are consistent with Morck, Shleifer, and Vishny (1988), McConnell and Servaes (1990), and Core and Larcker (2002) who show that firms benefits from increased inside ownership. The third governance variable that appears to be associated with loan announcement abnormal returns is CEO incentive pay. As expected, we observe a negative coefficient estimate for the CEO incentive variable in the models presented in Table 4.   It appears that firms where the CEO has less incentive-based pay have a greater need for monitoring by their bank lenders. This is consistent with research by Core, Holthausen, and Larcker (1999) who show a negative relationship between CEO compensation and corporate governance. In contrast, stock holdings of unaffiliated 5% blockholders, institutional ownership, and CEO cash compensation are not statistically related to the loan announcement abnormal returns. As with other studies of bank loan announcements we find that firm size and the degree to which the borrower already has debt in the capital structure do impact the market's reception to the loan announcement. However, with the governance variables included in the model the standard deviation of stock returns, ROA, and the time dummy are not statistically significant.

Time patterns in the corporate governance variables themselves may be affecting the impact of governance on loan announcements.

[table 5 about here]

Table 5 provides the results of regressing the abnormal returns on a number of the informational opaqueness variables and the control variables. Although several of the opaqueness variables (e.g., volume and number of trades) are related to loan abnormal returns in a univariate setting, only the percentage deviation of mean analyst forecasts (relative to actual EPS) is found to be statistically significantly related to the announcement returns. Several limitations impede our analysis, including the fact that many of our opaqueness variables are proxies for firm size. Additionally, the different data sources used to gather the opaqueness variables vary greatly in terms of years of data availability and degree of firm coverage. Comparisons across models are also complicated by the fact that different subsamples are analyzed when different variables are included in the models. We also recognize that the main information advantage historically provided (or assumed to be provided) by banks may have eroded systematically over time, so that residual individual differences in the cross-section are both relatively small and not meaningful. However, if this were the case, we might expect the time dummy to be significant in the models. Consistent with the results reported in Table 4, firms with large market capitalization and greater debt ratios experience less market reaction to loan announcements. In any event table 5 shows that there is some limited evidence that individual firm opaqueness as measured by analyst forecast errors is significantly related to bank loan announcement abnormal returns, and that those firms with greater opaqueness benefit the most from having bank loans. This evidence is consistent with Best and Zhang (1993).

[table 6 about here]

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Table 6 gives the results of regressing the abnormal returns on both the governance and the informational opaqueness variables. The findings revealed in this table are consistent with both Tables 4 and 5 in that loan announcement abnormal returns are positively associated with poorer governance and (to a limited degree) greater opaqueness. Specifically, we again find that firms with boards of directors that are not dominated by independent directors appear to be most in need of bank monitoring, though this relation is less significant than in models with governance variables only. The coefficient estimate for officer and director ownership loses its significance in this model, but we still find that firms with less incentive-based pay for their CEOs are more likely to experience positive responses to loan announcements. The strongest statistical relation in model 1 is between our lone statistically significant measure of informational opaqueness and loan abnormal returns (significant at the 1% level). These results again support the argument that bank monitoring is a substitute for internal corporate governance and that the informational value of these bank loan announcements is influenced by the informational opaqueness of the borrower. In addition, the debt ratio remains significant in the combined models, though the market value of equity and the time trend variable are not significant. Together it appears that both governance and opaqueness are important determinants of how the market responds to the news of a bank loan.

Results are shown in Table 6 for the entire time period, and also for two subperiods of the sample period. Our decision to break the time period down into two separate periods reflects the evidence in Fields et al. (2006) that the observed market reaction to bank loan announcements has diminished over time. The specific time periods shown in Table 6 are based on a switch date (June 2001) obtained by Fields et al. derived from a switching regressions technique.

The evidence presented by Fields et al. (2006) that there has been a significant decline in loan announcement returns in recent years may reflect fundamental changes in the governance and information markets. We explore this possibility by dividing the sample into a pre-2001 switch period and a post-2001 switch period. Table 6 (models 2 and 3) present the results of regressing the loan announcement abnormal returns on the same independent variables as in model 1, but for the pre- and post-switch announcements. Model 2 in Table 6, for the pre-switch period, shows that both the CEO incentive pay variable and the analyst forecast error variable are significant. In contrast, in the post switch period, as shown in model 3, none of the variables of interest are significant. These differences may reflect the substantial changes that took place in the quality of corporate governance in recent years as well as the developments of much more transparency in the information markets for the stocks of the firms in our sample.

5.   Conclusions

Our results provide a number of important new insights into the determinants of the market response to bank loan announcements and provide empirical evidence in support of two major theories of bank uniqueness. The strong relation between loan announcement abnormal returns and the quality of corporate governance suggests that banks are substitute monitors for internal corporate governance mechanisms and is consistent with the role of banks as delegated monitors (Diamond (1984)). Loan announcement abnormal returns are clearly greater for firms that have weaker corporate governance structures, especially a board that is dominated by inside directors. While we do find evidence of banks as substitute monitors, we also find that this role for bank lenders may be diminishing. This diminution of the monitoring role of banks may reflect both the recent strengthening of the quality of corporate governance following the

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scandals of the late 1990s as well as the increased availability and lower cost of information on borrowing firms.

Our results are also consistent with the argument that bank loan announcements convey more information to the market for firms with informational opaqueness. Here again, though, the evidence suggests that recent increases in the transparency of information and the reduction in information cost may have reduced this contribution of commercial banks. To the extent that our results may be generalized, our evidence suggests that loan announcement returns in the future may be considerably less than in the past. This evidence is itself consistent with evolving trends in the banking industry in which banks have placed more emphasis on the generation of income from non-lending, fee based functions such as investment banking and wealth management and less emphasis on traditional lending sources of revenue.

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Table 1
Sample Summary Statistics of the Financial Characteristics

This table includes summary statistics of the financial characteristics for 1111 bank loan announcements made over 1980-2003. Accounting data are extracted from COMPUSTAT as of the fiscal year end prior to the loan announcements. Pre-event price run-up is calculated using a market model approach and an equally weighted market index over 250 days beginning 50 days prior to the loan announcements, and the standard deviation of stock returns is calculated over the same period.

Variable	N	Mean	Median
Loan Amount ($ thousands)	1077	130.857	25.000
Total Assets ($millions)	1094	1210.630	200.093
Market value of equity ($millions)	1077	784.28	128.588
Return on total assets (%)	1094	10.457%	11.562%
Pre-event price run-up (%)	1111	-1.032%	-0.649%
Standard deviation of stock returns (%)	1111	3.607%	3.324%
Market to book ratio	1077	1.607	1.287
Debt ratio (%)	1094	23.939%	21.975%

Table 2
Governance Summary Characteristics

Sample summary statistics of the governance characteristics for 1111 firms announcing bank loans over 1980-2003. Board size is the number of directors. Independent or outside directors are those with no direct or indirect ties to the firm.   Inside directors are employees of the firm. Grey directors are indirectly related to the firm. Officer and Director ownership is the percentage ownership of all officers and directors of the firm as a group. Block ownership is the beneficial ownership of 5% or greater owners as a group. Unaffiliated block ownership is the beneficial ownership of 5% or greater owners without direct ties to the firm as a group. CEO cash compensation includes salary, bonus, and other cash compensation. Incentive-based pay is the percentage of total compensation provided by options (as valued using the Black Scholes options pricing model).   Governance characteristics are extracted from proxy statements, and institutional ownership is extracted from spectrum 13f filings. All data are for the closest date reported prior to the loan announcement date.

Variable	N	Mean	Median
Board size	901	8.075	7.000
Independent directors (%)	900	43.716%	42.857%
Inside directors (%)	900	35.534%	33.333%
Grey directors (%)	900	20.665%	18.182%
Officer and director ownership (%)	904	21.976%	15.500%
5% and greater block ownership (%)	904	38.874%	33.275%
5% and greater unaffiliated block ownership (%)	904	15.989%	11.210%
Institutional holdings (%)	1013	44.068%	39.531%
5% or greater institutional blocks (%)	1024	16.223%	8.512%
CEO cash-based compensation ($)	875	629,865	408,765
CEO incentive-based pay (%)	872	18.867%	0.000%

Table 3
Opaqueness Summary Characteristics

Sample summary statistics of the opaqueness characteristics for 1111 firms announcing bank loans over 1980-2003.   There are three sets of opaqueness measures. The first set of measures (volume, number of trades, average trade size, and spread) is extracted for the quarter prior to the announcement date from TAQ and ISSM. The number of analysts following the firm, the forecast errors calculated based on actual EPS less mean and then less median analyst forecasts, and the percentage of analyst forecast based on the mean and then the median forecast (the second set of measures) are obtained from IBES. The third group of opaqueness measures involve Standard and Poor's and Moody's debt ratings. Firms with bond ratings would be more opaque than firms without. Also, firms that are not similarly rated by both rating agencies may be considered less opaque. Bond ratings are obtained from Compustat, S&P bond guides, and Moody's Bond Guides.

Variable	**N**	**Mean**	**Median**
Total shares traded per firm	902	14488536.70	3853150.00
Number of trades per firm	918	11041.60	2372.00
Average Trade Size	902	1582.24	1420.48
Ask – bid spread	914	3.472	0.321
Number of Analysts	698	8.483	6.000
Mean analyst forecast error (actual – mean)	693	-0.7963717	-0.0450000
Median analyst forecast error (actual – median)	693	-0.8108597	-0.0333000
Mean % forecast error (actual – mean)/mean	698	-33.011%	-5.490%
Median % forecast error (actual – median)/median	698	-27.825%	-3.739%
Standard deviation of forecasts by firm	610	0.5211837	0.1172911
Firms with rated debt (% of 1111)	1111	31.23%	n.a.
Firms with both S&P and Moody's (of Rated)	347	59.65%	n.a.
Firms with the same S&P and Moody's (of Rated)	347	17.86%	n.a.
Firms with both rating and investment grade rating	207	93.72%	n.a.

Table 4

OLS regression models for governance models

Variable	Model 1	Model 2	Model 4
Intercept	0.4410	0.4453	0.49579
	(0.4056)	(0.3759)	(0.2673)
Independent Board (%)	-0.0176	-0.0167	-0.0138
	(0.0427)	(0.0524)	(0.0845)
Unaffiliated 5% blockholders (%)	-0.0083	-0.0056	
	(0.3990)	(0.5645)	
Officer & Director Owenership (%)	-0.0165	-0.0161	-0.0146
	(0.0597)	(0.0624)	(0.0600)
Institutional Ownership (%)	0.0010	0.0020	
	(0.8785)	(0.7558)	
CEO Cash Compensation (log)	0.0012	0.0012	
	(0.4520)	(0.4185)	
CEO Incentive Pay (%)	-0.0105	-0.0100	-0.0095
	(0.0764)	(0.0913)	(0.0839)
Market Value of Equity (log)	-0.0022	-0.0022	-0.0022
	(0.1090)	(0.0822)	(0.0273)
Debt Ratio (%)	-0.0163	-0.0192	-0.0158
	(0.0569)	(0.0242)	(0.0420)
ROA (%)	-0.0130		
	(0.3139)		
Standard Deviation of Stock Returns	0.0144		
	(0.9112)		
Year	-0.0002	-0.0002	-0.0002
	(0.4307)	(0.3956)	(0.2972)
N	775	776	829
F-Statistic	2.36	2.58	4.13
	(0.0072)	(0.0063)	(0.0004)
Adjusted R2	0.0190	0.0180	0.0222

Table 5

OLS regression models for opaqueness models

Variable	Model 1	Model 2	Model 4
Intercept	0.1528	0.5333	0.3200
	(0.8090)	(0.3626)	(0.6123)
Number of Analysts (log)	-0.0042		
	(0.1247)		
Standard Deviation of EPS Forecasts (%)	0.0037		
	(0.1846)		
Analyst Forecast Error (actual-mean)/mean – absolute value	0.0024	0.0025	
	(0.0665)	(0.0347)	
Average Trade Size			-0.0004
			(0.8905)
Mean Ask-Bid Spread			-0.0001
			(0.1516)
S&P and Moody's ratings (same=1)			-0.0016
			(0.5898)
Market Value of Equity (log)	-0.0006	-0.0020	-0.0011
	(0.6977)	(0.0701)	(0.2965)
Debt Ratio (%)	-0.0253	-0.0170	-0.0196
	(0.0029)	(0.0341)	(0.0133)
Year	-0.0001	-0.0003	-0.0002
	(0.8311)	(0.3785)	(0.6242)
N	584	670	860
F-Statistic	4.15	4.53	2.37
	(0.0004)	(0.0013)	(0.0281)
Adjusted R2	0.0314	0.0207	0.0095

Table 6

OLS regression models for governance and opaqueness before and after switch

Variable	Model 1	Model 2 Before switch	Model 3 After Switch
Intercept	0.3440	-0.7610	-1.5512
	(0.5877)	(0.3734)	(0.8703)
Independent Board (%)	-0.0173	-0.0132	-0.0285
	(0.0686)	(0.2073)	(0.1827)
Officer & Director Owenership (%)	-0.0051		
	(0.5956)		
CEO Incentive Pay (%)	-0.0121	-0.0147	-0.0048
	(0.0505)	(0.0329)	(0.7349)
Analyst Forecast Error (actual-mean)/mean – absolute value	0.0026	(0.0032)	0.0005
	(0.0316)	(0.0156)	(0.8798)
Market Value of Equity (log)	-0.0012	-0.0009	-0.0005
	(0.3442)	(0.5230)	(0.8639)
Debt Ratio (%)	-0.0140	-0.0093	-0.0316
	(0.1117)	(0.3506)	(0.1099)
Year	-0.0002	0.0004	0.0008
	(0.6136)	(0.3619)	(0.8685)
N	550	426	124
F-Statistic	3.41	2.97	1.08
	(0.0014)	(0.0074)	(0.3803)
Adjusted R2	0.0298	0.0271	0.0037