

Opacity and the Informational Value of Bank Loans

By

L. Paige Fields
Texas A&M University
College Station, TX 77843-4218
(979) 845-4927

Donald R. Fraser
Texas A&M University
College Station, TX 77843-4218
(979) 845-3610

January 2008

Key Words: Informational Opacity, Loan Announcements Returns
JEL Classification: G14, G21

The authors thank Manu Gupta, Ping Jiang, Kenneth Khang, Felicia Marston, Mukunthan Santhanakrishnan, and Michael Wilkins for helpful comments. Additionally, we thank Colin Campbell and Alex Petkovich for data assistance.

Opaqueness and the Informational Value of Bank Loans

Abstract

We provide evidence on the extent to which borrower loan announcement returns vary with the extent of borrower opaqueness for a sample of over 1000 commercial loan announcements over a 20-year period. We find that such announcements are more likely to have positive wealth effects for firms that are informationally opaque in terms of the bid/ask spread of their stock and other conventionally used measures of opaqueness. However, these relationships only exist for the earlier years of our sample. Our findings are consistent with the evidence presented by Fields, Fraser, Berry, and Byers (2006) that the positive response to loan announcements has decreased over time.

Opaqueness and the Informational Value of Bank Loans

1. Introduction

Extensive prior research (e.g., James (1987), Lummer and McConnell (1989), and Fields et. al. (2006)) provides evidence that announcements of bank loan agreements produce positive excess returns to borrowers. These positive abnormal returns presumably stem from the “new” information about the financial position of the borrower that is conveyed by the announcement. We would expect, however, that the impact of such announcements would be affected by the borrower’s information environment. Indeed, there is an extensive literature that suggests that information opacity is associated with a number of financial and market characteristics. For example, Bleck and Liu (2007) show that financial market volatility is affected by firm transparency. Lambert, Leuz, and Verrecchia (2007) show that the quality of disclosure influences the cost of equity both directly and indirectly. Leuz and Verrecchia (2000) also show that German firms that switched to more transparent reporting standards reduced the asymmetric component of their cost of capital.

We conjecture that the stock of highly opaque borrowers should have substantial price reactions to the information conveyed in the loan announcement as the loan announcements resolve the some of the uncertainty in the minds of investors regarding the “true” value of the borrower. In contrast, the stock of highly transparent borrowers should experience have little or no price response. While this conjecture is consistent with prior literature on information opaqueness, few of these studies have examined the effects of borrower transparency or opaqueness on observed borrower excess returns and those studies have not focused directly on this issue. The principal goal of this paper is

thus to determine whether financial market reactions to bank loan announcements do vary with the opaqueness of the borrower and, if so, what particular measures of opaqueness are most closely associated with these loan announcement returns.

Our evidence is drawn from an examination of the market reaction to over 1000 bank loan announcements occurring over the period from 1980-2003. We relate a variety of information opaqueness variables to the stock price reactions to bank loan announcements. Opaqueness variables considered include market-based measures such as trading volume, the average bid-ask spread (as a percentage of bid), as well as analyst coverage measures such as the average number of analysts following the firm and the absolute value of analyst forecast errors. We also relate the extent of borrower loan announcement returns to different measures of the firm's bond rating. We find that borrower opaqueness greatly influences the market's perception of the informational value of bank loans.

Our results are consistent with Best and Zhang (1993), who find that borrowers with high financial analyst prediction errors have higher excess loan announcement returns than borrowers with low financial analyst prediction errors.¹ Specifically, we find that loan announcement abnormal returns are positively related to the degree of analyst forecast errors. However, although our results are generally consistent with Best and Zhang (1993), we also show that the analyst forecast error proxy is less closely associated with the loan announcement abnormal returns than other measures of opaqueness. We find that firms with high bid-ask spreads (as a percentage of bid) on their stocks have more positive loan announcement returns, and this association appears to be more

¹ Best and Zhang (1993) examine the informational value of bank loan announcements for 491 announcements over the 1977- 1989 period by dividing the borrowers into those with low financial analyst prediction errors and those with high financial analyst prediction errors.

important than the relation between abnormal returns and analyst forecast errors. Our results are generally consistent with the hypothesis that borrower excess returns are greater for more opaque firms.

2. Related Literature

Numerous studies have examined the economic effects of the announcement of loan agreements between firms and banks and the implications of these announcement returns for the issue of bank uniqueness. Mikkelsen 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 relation. 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 suggests that banks are unique in some way, implying that banks provide services that are not easily replicated by the capital markets (Gorton and Winton (2003)). 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 as a specialized agent. Another approach to explaining the special role of financial intermediation relates to the ability of banks to produce information. Leland 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), Besanko 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.

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 Lundholm (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 (2000)). 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 (1994) 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 opacity. 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 major areas of research spanned by this study are linked by the special role banks play as producers of information about borrowers to studies of information opacity. 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. This sample of over 1000 loan announcements is substantially larger than those used in prior studies. For example, James (1987) uses 207 loan announcements while Lummer and McConnell (1989) use 728 loan announcements. Best and Zhang (1993) use a sample of about 500 firms. Our 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. The loan announcement return used in the analysis is a 2 day (0,+1) CAR using the market model approach to calculating abnormal returns.

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. Best and Zhang (1993) do not report data on the sizes of their borrowers. However, their sample was obtained from searching the *Wall Street Journal* resulting in a sample of relatively large firms. 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.

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 (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 may be 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. In contrast, Best and Zhang (1993) find no important differences in loan announcement returns for new loans versus renewals. 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 *Borrower Informational Opacity*

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 opacity, 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 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 trading volume, average number of trades, average trade size, and average percentage spread $((\text{ask-bid})/\text{bid})$ 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 through 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 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 the bid price and the ask price.

We use I/B/E/S to collect 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 analyst forecast errors (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 expect 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.

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 believe that firms with split bond ratings and those with only one or no ratings may have greater informational opaqueness.

[Table 2 about here]

Table 2 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 ask-bid spread is 2.80 %(median). Our firms are followed by 6 analysts (median). These analysts forecast our firms' earnings with a relatively low 5.5% forecast error. The means for our variables are often quite different than the medians, suggesting the existence of a few outliers. Also, differences often exist 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. Univariate Evidence

Table 3 provides Pearson correlation coefficients between bank loan announcement abnormal returns and each of our measures of opacity. We predict that firms with greater informational opacity will have bank loan announcements that are received more favorably because the loan has the potential to provide greater information to the market. Our evidence supports this expectation in that the volume of shares traded is negatively related (at the 10% level) to abnormal returns. Firms with fewer shares traded are considered more opaque and have a more positive average response to bank loans. The percentage spread ((ask-bid)/bid), the absolute value of the percentage deviation between the mean analyst EPS forecast and actual EPS, and the standard deviation of analyst forecasts are all positively and significantly related to announcement abnormal returns. Additionally, firms that have ratings by both Standard & Poor's and Moody's have lower abnormal returns, while firms without either rating have the most positive market responses to loan announcements. All of these relations point to firm opacity as an important factor in determining the reaction of the market to news that a loan agreement has been reached.

[Table 3 about here]

5. Multivariate Evidence

Table 4 provides 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 opacity models

(models 1 and 2) and into regressions before and after a shift (models 2a and 2b).

Fortunately, problems of endogeneity that typically plague many other studies are not likely to be of concern in the present analysis. Our dependent variable is the market's response to bank loans that is unlikely to be endogenously determined with corporate governance or with opaqueness factors.

[Table 4 about here]

Table 4 provides the results of regressing the abnormal returns on a number of the informational opaqueness variables and the control variables. Several of the opaqueness variables are proxies not only for the relative transparency of the firm, but also for firm size. For this reason all models include firm size as well as other control variables related to firm size. Although several of the opaqueness variables (e.g., volume, percentage spread, absolute value of percentage analyst forecast error, and whether both, one, or neither of the rating agencies rate the firm's debt) are related to loan abnormal returns in a univariate setting, we find that the percentage bid//ask spread and the absolute value of percentage analyst forecast errors is statistically significantly related to the announcement returns in a multivariate setting. .

In model 1, we show that coefficient estimate for the percentage spread is positive and statistically significant at the 1% level. However, we also find (in results not shown in Table 4) that the absolute value of analyst forecasts is positive and statistically significant (at the 5% level) when introduced into the model in the absence of percentage spread but with the control variables. In other words both proxies work interchangeably

as measures of informational opaqueness. However, the analyst forecast measure is dominated by percentage spread when both are considered together. In fact, in a regression that includes both variables the analyst forecast measure becomes insignificant. Additionally, we find that firms with greater debt ratios and more profitable firms experience less market reaction to loan announcements. In contrast, neither borrower bond ratings nor the standard deviation of its stock returns appear to affect loan announcement returns.

Results are shown in Table 4 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 4, models 2a and 2b are based on a switch date derived from a switching regressions technique. The switching regressions technique allows the data to reveal when statistically significant shifts in the variable of interest occur. Although there is a trend of decreasing market reactions to loan announcements across time, the most significant shift occurs (over the period 1980-2003) in June of 2001. Therefore, we present results of model 2 for loans announced before (model 2A) and those announced after (model 2b) the switching date.

. Model 2a in Table 4, for the pre-switch period, is not qualitatively different from model 2 for the full sample. That is, we find that the quoted percentage spread is significantly related to bank loan announcement abnormal returns. In contrast, in the post switch period, as shown in model 2b, none of the variables of interest are significant. In fact the model is not statistically significant at conventional levels. These differences

may reflect the development of much more transparency in the information markets for the stocks of the firms in our sample as suggested by Fields et al. (2006). They may also reflect the increased role of securitization in the bank lending process, as suggested by Sufi (2007).

Our evidence suggests that bank uniqueness historically has been related to the ability of bank lenders to provide information to financial markets. Stockholders at one time valued this information and the news of bank loans caused significant share price increases. In a sample that spans over two decades we still detect the important relation between the degree of informational opaqueness and the market's response to bank loans. Our results are consistent with decreasing importance for banks as providers of unique information in a broadened information age.

6. Conclusions

We provide evidence on the association between the transparency of the information environment and the strength of borrower excess returns following bank loan announcements. Our expectation is that loan announcement returns should be greater for more opaque borrowers than for more transparent borrowers. Both univariate and multivariate results confirm this expectation. Moreover, and in contrast with the evidence presented by Best and Zhang (1993), these positive abnormal returns are most closely associated with the bid/ask spread on the borrower's stock. Borrowers with high bid/ask stock spreads, who presumably have the most opaque financials, experience the largest loan announcement abnormal returns. There is also some evidence, consistent with Best and Zhang, that borrowers with greater analyst forecast errors experience

greater loan announcement abnormal returns. However, the importance of analyst forecast errors is dominated by the bid/ask spread as a proxy for the degree of borrower transparency.

Our evidence also suggests that recent increases in the transparency of information, reduction in information costs, and changes in the bank lending process may have reduced the strength of loan announcement excess returns. To the extent that our results may be generalized, our evidence suggests that the positive reaction to loan announcement in the future may be considerably less than in the past.

References

- Allen, F., "The Market for Information and the Origin of Financial Intermediation," Journal of Financial Intermediation 1 (1990), 3-30.
- Besanko, D., and G. Kanatas, "Credit Market Equilibrium with Bank Monitoring and Moral Hazard," Review of Financial Studies 6 No. 1 (1993), 213-232.
- Berlin, M., and J. Loeys, "Bond Covenants and Delegated Monitoring," Journal of Finance 43 (1988), 397-412.
- Best, R., and H. Zhang, "Alternative Information Sources and the Information Content of Bank Loans," Journal of Finance v. 48, No. 4 (1993), 1507-1523.
- Bleck, A. and X. Liu, "Market Transparency and the Accounting Regime," Journal of Accounting Research, 45, 2007, 229-256.
- Billett, M., M. Flannery, and J. Garfinkel, "The Effect of Lender Identity on a Borrowing Firm's Equity Return," Journal of Finance, June 1995, v. 50, No. 2, 699-718.
- Boot, A., "Relationship Banking: What Do We Know?" Journal of Financial Intermediation 9 (2000), 7-25.
- Boyd, J., and E. Prescott, "Financial Intermediary Coalitions," Journal of Economic Theory 38 (1986), 211-232.
- Campbell, T., and W. Kracaw, "Information Production, Market Signaling and the Theory of Financial Intermediation," Journal of Finance 35 (1980), 863-881.
- Deyoung, R., M Flannery, W Lang, S Sorescu, "The Information Content of Bank Exam Ratings and Subordinated Debt Prices," Journal of Money, Credit and Banking 33 No. 4 (2001), 900-925.
- Diamond, D., "Financial Intermediation and Delegated Monitoring," Review of Economic Studies 51 (1984), 393-414.
- Fields, P., D. Fraser, T. Berry, and S. Byers, "Do Bank Loan Relationships Still Matter?" Journal of Money, Credit, and Banking 38 No. 5, (2006) 1195-1210.
- Flannery, M., S. Kwan, and M. Nimalendran, Market Evidence on the Opaqueness of Banking Firms' Assets, Journal of Financial Economics, 71(3),2004,419-460.

- Gorton, G., and A. Winton, "Financial Intermediation", in G. Constantinides, M. Harris, and R. Stulz, ed.: Handbook of the Economics of Finance, (2003), Elsevier North Holland, Amsterdam.
- Hadlock, C., and C. James, "Do Banks Provide Financial Slack?" Journal of Finance 57 No. 3 (2002), 1383-1419.
- Healy, P., and K. Palepu, "Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature," Journal of Accounting and Economics 31 (2001)
- James, C., "Some Evidence on the Uniqueness of Bank Loans," Journal of Financial Economics 19 (1987), 217-238.
- Krishnaswamy, S., and V. Subramaniam, "Information Asymmetry, Valuation, and the Corporate Spin-Off Decision," Journal of Financial Economics 53 (1999), 73-112.
- Lambert, R., C. Leuz, and R. Verrecchia, "Accounting Information, Disclosure, and the Cost of Capital," Journal of Accounting Research, 2007
- Lang, M., and R. Lundholm, "Corporate Disclosure Policy and Analyst Behavior," Accounting Review 71 (1996), 467-492.
- Leuz, C., and R. Verrecchia, "The Economic Consequences of Increased Disclosure," Journal of Accounting Research, 38, 2000, Supplement, 91-124.
- Leland, H., and D. Pyle, "Information Asymmetries, Financial Structure and Financial Intermediaries," Journal of Finance 32 (1977), 371-387.
- Lummer, S., and J. McConnell, "Further Evidence on the Bank Lending Process and the Capital Market Response to Bank Loan Agreements," Journal of Financial Economics 21 (1989) 99-122.
- Mikkelson, W., and M. Partch, "Valuation Effects of Security Offerings and the Issuance Process," Journal of Financial Economics 15 (1986), 31-60.
- Morgan, D., "Rating Banks: Risk and Uncertainty in an Opaque Industry," American Economic Review 92, No. 4 (2002), 874-888.
- Petersen, M., and R. Rajan, "The Benefits of Lending Relationships: Evidence From Small Business Data," Journal of Finance 49 (1994), 3-37.
- Ramakrishnan, R., and A. Thakor, "Information Reliability and a Theory of Financial Intermediation," Review of Economic Studies 51 (1984), 415-432.

- Sufi, A. "Information Asymmetry and Financing Arrangements: Evidence From Syndicated Bank Loans, Journal of Finance, April 2007, 629-666.
- Slovin, M., S. Johnson, and J. Glascock, "Firm Size and The Information Content of Bank Loan Announcements," Journal of Banking and Finance 16 (1992) 1057-1071.
- Smith, C., "Investment Banking and the Capital Acquisition Process," Journal of Financial Economics 15 (1986), 3-19.
- Thomas, S., "Firm Diversification and Asymmetric Information: Evidence from Analysts' Forecasts and Earnings Announcements," Journal of Financial Economics 63 No. 3 (2002), 373-396.

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.

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>
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
Opacity Summary Characteristics

Sample summary statistics of the opacity characteristics for 1111 firms announcing bank loans over 1980-2003. There are three sets of opacity 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 opacity 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.

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>
Total shares traded per firm	902	14488536.70	3853150.00
Number of trades per firm	918	11041.60	2372.00
Percentage spread (%)	914	3.8075%	2.7990%
Number of Analysts	698	8.483	6.000
Mean analyst forecast error (actual – mean)	693	-0.7963717	-0.0450000
Mean % forecast error (actual – mean)/mean	698	-33.011%	-5.490%
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 3
Pearson Correlation Coefficients for Opaqueness Characteristics and Bank Loan Announcement Abnormal Returns

This table presents Pearson correlation coefficients for opaqueness and governance characteristics and bank loan announcement abnormal returns (CAR) for 1111 firms announcing bank loans over 1980-2003. The log of the number of shares traded per firm (Volume), log of number of trades (Trades), and quoted percentage spread calculated as ((ask-bid)/bid) (Spread) are extracted for the quarter prior to the announcement date from TAQ and ISSM. The number of analysts following the firm (Analysts), the absolute value of forecast errors (AFE) calculated based on actual EPS less mean of analyst forecasts, and the standard deviation of analysts EPS forecasts (SFE) are obtained from IBES. Standard and Poor's and Moody's debt ratings are obtained from Compustat, S&P bond guides, and Moody's Bond Guides. Brate is a dummy variable equal to one when the firm is rated by both agencies, is zero when there is only one rating, and is -1 when there is no rating.

	CAR	Volume	Trades	Spread	Analysts	AFE	SFE
Volume	-0.0553*	-	-	-	-	-	-
Trades	-0.0532	0.9293**	-	-	-	-	-
Spread	0.1286***	-0.5411***	-0.5779**	-	-	-	-
Analysts	-0.0253	0,5712***	0.5560**	-0.4163***	-	-	-
AFE	0.1530***	-0.1462***	-0.1465***	0.2319***	-0.1593***	-	-
SFE	-0.0363	-0.0269	-0.0615	0.1890***	-0.0662*	0.0228	-
Brate	-0.0738**	0.3820***	0.3528***	-0.2480***	0.3824***	-0.0195	-0.0242

***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively

Table 4**Ordinary Least Squares Regressions of Bank Loan Announcement Abnormal Returns and Firm Opaqueness Measures**

This table presents ordinary least squares results with two-day bank loan announcement abnormal returns as the dependent variable regressed against measures of firm opaqueness. Volume and percentage spread ((ask-bid)/bid) are extracted for the quarter prior to the announcement date from TAQ and ISSM. The absolute value of forecast errors calculated based on actual EPS less mean forecast dividend by the mean EPS forecast and the standard deviation of analyst forecasts (for firms with two or more analysts) are obtained from IBES. Standard and Poor's and Moody's debt ratings are obtained from Compustat, S&P bond guides, and Moody's Bond Guides. Total assets, debt ratio (total liabilities/total assets), and ROA are extracted from Compustat. Standard deviation of stock returns (for the 250 days ending 50 days before the announcement date) is calculated using data from CRSP. The switch date, June 29, 2001, is provided by a switching regressions model.

<u>Variable</u>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 2a</u> <u>Before switch</u>	<u>Model 2b</u> <u>After Switch</u>
Intercept	0.7327	0.0327	0.0048	0.0273
Volume (log)	-0.0009			
Percentage Spread	0.1783***	0.1638***	0.1810***	0.0933
S&P and Moody's ratings	-0.0037			
Total Assets (log)	0.0001	-0.0000	0.0008	-0.0030
Debt Ratio (%)	-0.0182**	-0.0023***	-0.0196**	-0.0208
ROA (%)	-0.0116	-0.0224***	-0.0229***	-0.0210
Standard Deviation of Stock Returns (%)	0.1600	-0.1512	-0.1567	-0.2263
Year	-0.0004	-0.0003		
N	873	885	720	164
F-Statistic	2.63***	4.55***	3.96**	1.84
Adjusted R2	0.0147	0.0235	0.0201	0.0251

***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.