

# ARE BANKS STILL SPECIAL? NEW EVIDENCE ON THEIR ROLE IN THE CORPORATE CAPITAL-RAISING PROCESS

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**E**arly studies of financing choice focus almost exclusively on the type of financial claims firms use to finance their investments. Typically these studies emphasize the costs and benefits of debt versus equity financing with the aim of determining a firm's optimal leverage ratio. In the past decade, financial economists have turned their attention to the costs and benefits associated with different providers of funds and, in general, to the choice between public and private sources of financing. Recent studies have attempted to provide answers to questions such as: What are the main factors that influence the choice between using privately placed debt and issuing publicly traded debt? Are corporate bonds and commercial paper close substitutes for bank borrowing for certain types of borrowers? Beyond the general choice between public and private claims, the question also arises as to whether the identity of a particular type of private lender matters. For example, are commercial loans from finance companies close substitutes for bank loans or are bank loans a unique source of debt financing?

How we answer this last question has important implications for both corporate financial policy and bank regulatory policy. For example, while it is well established that small, privately held companies benefit most from private financing, it is less clear how medium- and large-sized firms should choose between private and public financing. For these firms, an understanding of the costs and benefits of private debt financing and the advantages of using certain types of lenders can potentially lower the overall cost of capital. From a bank regulatory

perspective, it is important to know whether banks are a unique or special source of financing for businesses. For if bank loans are special, then disruptions to the banking sector can reduce corporate investment and general macroeconomic activity.<sup>1</sup> In fact, one potential role for banks is to provide a liquidity cushion in the economy when public capital markets fail. But if public or other private debt financing sources are good substitutes for bank borrowing, then adverse changes in the banking sector will have little effect on overall investment.

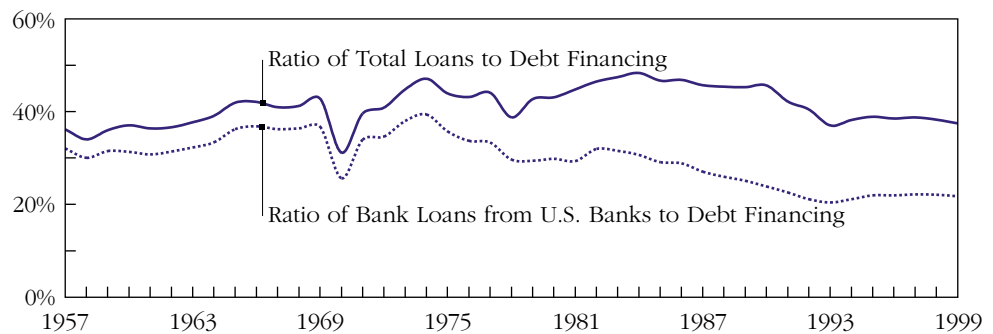
Understanding the importance of lender identity can also help explain the persistent importance of private debt financing in the United States. As shown in Figure 1, while U.S. banks' share of total corporate financing has declined over the past two decades, the fraction of all loans (including loans from foreign banks, insurance companies and finance companies) to total debt outstanding has held steady at around 40% of total debt financing. Thus despite the wide spread perception of an increase in the importance of public debt financing, private lenders continue to be an important source of financing for U.S. businesses.

In this article, we review recent evidence on whether there is anything special or unique about bank loan financing versus public debt or commercial paper financing. We also review the evidence concerning whether bank lending is different from lending by finance companies and other private lenders. Our point of departure is an empirical study by one of the present authors entitled "Some Evidence on the Uniqueness of Bank Loans" and published in the *Journal of Financial Economics* in 1987.<sup>2</sup> That

1. For instance, a set of theories stress the so-called bank "lending channel" as an important conduit of monetary policy stress. See Anil Kashap and Jeremy

Stein "Monetary Policy and Bank Lending," in *Monetary Policy* edited by N. Gregory Mankiw, 1994 University of Chicago Press, Chicago.

**FIGURE 1**  
U.S. BANK LOANS AND  
TOTAL LOANS AS A  
PROPORTION OF DEBT  
FINANCING\*



\*Source: Federal Reserve Flow of Funds, various years.

study (hereafter referred to as James (1987)) reported the surprising finding that the stock market responds positively, on average (and in a very strong majority of cases), to announcements of new bank lending agreements. This finding offers a pointed contrast to the neutral or negative responses that have been found to accompany announcements of almost all other kinds of securities offerings, including private placements of debt, straight public debt, preferred stock, convertible debt, convertible preferred, and common stock.<sup>3</sup> We update the earlier article by reviewing a number of recent studies that examine whether the market reaction to loan announcements varies with the types of borrowers; the types of loans; and the identity of the private lender.

Overall, these recent studies confirm the earlier finding of a positive market response to announcements of bank loan announcements. Nevertheless, there is also evidence that the market responds favorably to other types of loan announcements, thus suggesting that banks may not play a unique role in corporate financing.<sup>4</sup> It turns out that non-bank lenders such as finance companies offer loans with characteristics similar to bank loans. But, as we point out later, the fact that banks continue to be the predominant providers of commitment-based loans suggests that banks have a comparative advantage in providing these types of loans.

The positive stock price reaction to new loan agreements raises another intriguing question: If bank loans are good news and public debt issues are

bad news for stock market investors, why do so many companies issue publicly traded debt? The obvious answer is that for some borrowers, at least in certain circumstances, bank borrowing is more expensive than borrowing in public debt markets. To better understand the value added by banks and other private lenders, several recent studies investigate whether the stock price reaction to loan announcements varies with the characteristics of the borrower or the type of loan being made. In general, these studies suggest that private lenders add the greatest value for so called "informationally-intensive" borrowers; borrowers who face the greatest potential information problems when issuing public securities. Indeed, as we will argue below, firms seem to borrow privately when they are most likely to be undervalued by the market and turn to public financing when they are overvalued.

In the pages that follow, we start by reviewing the reasons why the identity of a firm's lenders might affect the value of corporate borrowers; and, in so doing, we review recent research on the main factors that appear to influence the choice between public and private debt financing. Next, we review important new studies of the stock market response to loan announcements and discuss the implications of these findings for the role of banks in the capital-raising process. In the final section, we focus on the characteristics of bank loan contracts and discuss why banks may have a comparative advantage in providing these types of loans.

2. Christopher M. James, "Some Evidence on the Uniqueness of Bank Loans," *Journal of Financial Economics*, (1987) 19. A practitioner version of the study by Christopher James and Peggy Weir, entitled "Are Bank Loans Different? Some Evidence from the Stock Market," was published in this journal the following year (Summer 1988).

3. See for example, Clifford Smith's article entitled "Raising Capital: Theory and Evidence," *Midland Corporate Finance Journal* (Spring 1986).

4. See, Dianna Preece and Donald Mullineaux "Monitoring by Financial Intermediaries: Banks vs. Nonbanks," *Journal of Financial Services Research*, 1994, 8 and Matthew Billett, Mark Flannery and Jon Garfinkel, "The Effect of Lender Identity on the Borrowing Firm's Equity Returns," *Journal of Finance*, 1995, 50.

TABLE 1

	Firms without Public Debt		Firms with Public Debt	
	Mean	Median	Mean	Median
Assets (in 1980 \$ millions)	356	55	2585	463
Leverage	.32	.29	.51	.41
Interest Coverage	17.16	4.83	5.79	3.37
Market Value Assets/Book Value Assets	1.35	1.19	1.32	1.14
Volatility in Stock Returns	2.9%	2.5%	2.7%	2.1%
Cash and Marketable Securities/Assets	.093	.052	.075	.045

Based on a sample of 250 publicly traded firms over the period 1980 through 1993. From Joel Houston and Christopher James "Do Relationships have Limits?: Banking Relationships, Financial Constraints and Investment" December 1999, Forthcoming in *Journal of Business*.

### WHY COMPANIES SHOULD CARE WHO THEIR LENDER IS

There are at least four good reasons firms why firms might care about who provides them with financing. First, private lenders may be better informed about the future prospects of the borrowing firm than investors in public debt or equity markets. If potential investors in new public debt issues are uncertain about the value of the securities the firm is issuing (while private lenders are confident in the company's ability to service at least a short term loan), they will require a premium for bearing this risk, thus raising the cost of public financing relative to private financing. Second, private financing may involve greater monitoring—and, if problems arise, more active intervention—by lenders, which can serve to reduce agency conflicts that arise between the various claimants of debt-financed companies. The better control of conflicts provided by private debt contracts can lower the return that investors require for supplying funds. Third, private debt contracts may be easier to renegotiate or restructure than publicly traded debt contracts, which tends to lower financial distress costs. Finally, there may be differences in the transaction and flotation costs associated with issuing public as opposed to private debt and equity claims. For example, if there are significant economies of scale in issuing public securities, then firms with large financing needs will find it less expensive to borrow in public markets than borrowing privately.

Empirical studies of the mix of private versus public debt suggest that all four factors influence the

extent of a firm's reliance on private financing. For example, in an article forthcoming in the *Journal of Business*, Joel Houston and Chris James report the results of their study of the private and public debt structure of 250 publicly traded companies over the period 1980-1993.<sup>5</sup> Using detailed information from the companies' financial statements, their study was able to determine the percentage of borrowing that comes from public debt, bank debt, and other types of private debt. As summarized in Table 1, firms that relied primarily on bank financing (so-called "bank dependent" firms) were on average smaller, younger, less highly levered, and more likely to hold liquid assets (cash and marketable securities) than firms with public debt outstanding. Perhaps more important, the study also found that the level of investment spending by bank-dependent firms was more sensitive to the firm's internally generated cash flows—that is, for example, when operating cash flows declined, the drop in investment was proportionately greater—than in the case of firms with public debt. These results are consistent with the argument that bank-dependent firms face higher costs of external financing (arising from information or potential agency problems) than firms with public debt outstanding.

Public debt issues typically involve flotation costs that include investment banker fees, registration and filing fees, and other transactions costs. In a recent study published in the *JFE*, Sudha Krishnaswami, Paul Spindt, and Venkat Subramanian examined the importance of flotation, information, and agency costs in determining the mix of public and private debt for publicly traded firms.<sup>6</sup> In their

5. Joel Houston and Christopher James "Do Relationships have Limits?: Banking Relationships, Financial Constraints and Investment" December 1999, Forthcoming in *Journal of Business*.

6. Sudha Krishnaswami, Paul A. Spindt, and Venkat Subramanian, "Information Asymmetry, Monitoring, and the Placement Structure of Corporate Debt", *Journal of Financial Economics*, 1999, 51.

paper, "private debt" refers to all forms of long-term debt that is not publicly traded, including banks loans and private placements. Krishnaswami, et al. begin by noting the conventional wisdom that the fixed component of flotation costs is considerably larger for public debt issues than for private issues, thus giving public debt issues greater economies of scale. In making this point, they cite a study of the private placement market that maintains that public issues are only cost effective when issue size exceeds \$100 million.<sup>7</sup> Consistent with this observation, Krishnaswami, et al. find that larger firms, and firms with larger average issue sizes, rely more heavily on public debt financing.

More interesting are Krishnaswami, et al.'s findings that bear on how agency costs affect the choice of public versus private debt. The two agency problems that affect a firm's debt structure are known as *asset substitution* and *underinvestment*. The asset substitution problem stems from the incentives of companies with debt outstanding to substitute higher-risk investments for lower-risk investments. Shareholders gain by such substitutions since they receive the upside gains from the riskier projects while bondholders bear the losses if the project is unsuccessful. Faced with the potential for asset substitution, bondholders who are unable to monitor or control asset substitution will demand a higher yield to bear this risk. The underinvestment problem refers to the tendency of even shareholder-value maximizing firms with risky debt outstanding to pass up relatively low risk, positive net present value (NPV) investments. The idea is that for firms with risky debt outstanding, shareholders are paid out of cash flows that remain only after first paying off the claims of all debtholders. In cases where the "debt overhang" is sufficiently great, even managers acting in the interest of their shareholders will pass up positive-NPV projects whose cash flows go toward making the firms' debt less risky.

These agency problems associated with debt are generally thought to be more severe for firms with significant growth opportunities, since these firms can more easily substitute riskier projects for

safe ones and are more likely to face underinvestment problems. One way to control these agency problems, while still enjoying the benefits of debt financing, is to use private debt. With the help of the tighter bond covenants that invariably come with private issues, private debtholders have a comparative advantage in monitoring and enforcing debt contracts. And, to the extent that private debt contracts are easier to renegotiate than public debt contracts, firms with greater growth opportunities will use more private debt.<sup>8</sup> Consistent with this argument, Krishnaswami et al. find that reliance on private borrowing is positively related to the extent of a company's growth opportunities (as measured by the ratio of a firm's market value to book value of equity).

Krishnaswami et al. do not distinguish between bank debt and other private debt claims. But since bank debt is primarily short term, and short term debt (with monitoring) is likely to be more effective at controlling the underinvestment problem, we would expect the positive relation between reliance on private borrowing and growth opportunities to be strongest in the case of bank borrowing. Consistent with this view, a 1996 study by Joel Houston and Chris James found that a company's reliance on bank borrowing rises with increases in its market to book ratio.<sup>9</sup> At the same time, they found no relation between use of other private debt and the importance of growth opportunities, which suggests that short-term bank lending is particularly effective at mitigating agency problems of debt.

But if banks and perhaps other short-term lenders appear to add value by reducing agency costs, there appear to be limits on the flexibility bank loans provide corporate borrowers when mixed with public debt. For example, in a 1995 study of troubled debt restructurings, James found that while bankers frequently waive covenants, they rarely scale down or exchange their claims for equity if the troubled firm also has public debt outstanding.<sup>10</sup> During workouts involving such companies, banks scale down their claims only when public bondholders agree to do the same (and by more than the banks

7. See Mark Carey, Stephen Prowse, John Rhea and Gregory Udell, "The Economics of the Private Placement Markets: A New Look", *Financial Markets and Instruments*, 1993, 2.

8. Clifford Smith and Jerold Warner, "On Financial Contracting: An Analysis of Bond Covenants," *Journal of Financial Economics* 1979, 7.

9. Joel Houston and Christopher James "Bank Information Monopolies and Mix of Private and Public Debt Claims," *Journal of Finance*, 1996, 51, 1863-1890.

They find that the relation between the proportion of bank debt to total debt and growth opportunities varies with the number of lenders a firm uses. Specifically, the positive relation between reliance on bank debt and growth opportunities is most pronounced for large firms that use multiple bank lenders or have public debt outstanding.

10. Christopher James, "When do Banks Take Equity in Debt Restructurings?," *Review of Financial Studies*, (Winter) 1995.

do). Of course, the unwillingness of banks to scale back their claims unilaterally is not at all surprising, given that most bank debt is secured while public debt claims are rarely secured.<sup>11</sup> Thus, one implication of this result is that for companies with some public debt outstanding, too much bank debt may actually inhibit their attempt to restructure their debt when experiencing financial distress.

As we discuss in greater detail in the last section of this article, a distinctive feature of private debt and particularly bank loans is that they more contain more comprehensive and restrictive covenants than public debt contracts. While designed to reduce agency problems, and hence, a firm's borrowing costs, the contractual restrictions in debt covenants can also end up reducing value by restricting a firm's flexibility when faced with a deterioration in earnings. Such considerations may be particularly important in light of banks' reluctance to restructure their claims when other, more junior debt is outstanding.

Indeed, as Stuart Gilson and Jerold Warner discuss in a recent study, junk bond issues were (and continue to be) marketed by investment bankers as an important alternative source of debt financing for growth firms that would otherwise rely heavily on bank financing.<sup>12</sup> Junk bonds, the argument goes, can provide flexibility because they impose fewer and looser financial restrictions and because they are typically unsecured, which gives management greater discretion in using the firm's cash flows. This flexibility may be particularly important for growth firms that anticipate bumping up against the covenants contained in their bank loan contracts.

Gilson and Warner examined whether junk bonds are issued to enhance financial flexibility by examining 164 high yield bond issues during the period 1980 through 1992 whose proceeds were used to repay bank loans. Their study compared the covenants contained in junk bond issues to those in the bank loans the bonds were issued to replace. Virtually all bank loan contracts were found to contain covenants that restrict investment expenditures, the sale of assets, financing activities and the issuance of senior debt claims. The bank loan contracts also typically contained covenants that

specified values for financial ratios that trigger default. In contrast, the majority of junk bond contracts did not contain these types of restrictions. And, consistent with the view that junk bonds are issued when bank loan covenants are likely to bind, Gilson and Warner reported that companies that issued junk bonds experienced significant declines in operating earnings in the year after issuance; in fact, the average change in quarterly operating income to total assets was a negative 44 percent from the quarter preceding the issue to four quarters after the issue!

Most of the recent studies of corporate debt structure do not distinguish between short-term private debt claims made by banks and by other private lenders. An important exception is a 1998 study by Mark Carey, Mitchell Post, and Steven Sharpe on the differences between bank lending and finance company lending to corporations.<sup>13</sup> As the data we saw earlier in Figure 1 indicates, lending by finance companies and other non-bank lenders has increased in recent years. Indeed, Carey et al. report that corporate lending by finance companies increased 120% between 1985 and 1995, while commercial lending by banks increased by only 54% during this period. While much of the growth in finance company lending to businesses was in the form of equipment lending and auto-related finance (dealer financing through captive finance subsidiaries)—lending which may be qualitatively different from traditional commercial lending—finance companies have also made significant inroads into banks' traditional term and commitment based lending areas.

The growth of finance company lending raises the question of whether this type of lending is a close substitute for bank loans or whether finance companies specialize in making certain types of loans that banks typically avoid. Using information obtained from Loan Pricing Corporation's Deal Scan data base, Carey et al et al. provide evidence that finance companies specialize in making so called "asset-backed" loans to high risk borrowers—a segment of the lending market that banks have traditionally shied away from. As shown in Table 2, they found that borrowers from finance companies are more

11. In a follow-up study published in 1996 in the *Journal of Finance*, James finds that, while banks rarely unilaterally scale down their claims, bank appear to influence the success of public debt exchange offers in financial distress. Specifically, they do exchange offers made in conjunction with bank concessions are characterized by significantly greater reductions in public debt outstanding and a significantly higher probability of success. See Christopher James, "Bank Debt

Restructurings and the Composition of Exchange offers in Financial Distress," *Journal of Finance*, 1996, 51 (2).

12. Stuart Gilson and Jerold Warner, "Junk Bonds, Bank Debt, and Financing Corporate Growth", Harvard University Working paper, 2000.

13. Mark Carey, Mitchell Post and Steven Sharpe, "Evidence from Specialization in Private Debt Contracts," *Journal of Finance*, June, 1998, 53 (3).

TABLE 2

## PANEL A. BORROWER CHARACTERISTICS

	Bank Borrowers		Finance Company Borrowers	
	Mean	Median	Mean	Median
Assets (\$ millions)	233.67	212.51	251.13	234.62
Leverage	.502	.496	.718	.745
Interest Coverage	4.365	3.600	2.393	1.869
EBITDA/Assets	.119	.126	.097	.116
Market-to-Book Ratio	1.394	1.175	1.198	1.021

## PANEL B. LOAN CHARACTERISTICS

	Bank Loans	Finance Company Loans
LOAN TYPE (PERCENT)		
Line of Credit	57	51
Term Loan	29	40
Bridge Loan/Demand Loan	7	6
Standby Letter of Credit	4	1
LOAN TERMS		
Median Spread over LIBOR	250	402
Median Term to Maturity	24	37
Percentage of Loans Secured	70	92
Percentage of Loans with Borrowing Base Features	30	47

Data are from Mark Carey, Mitchell Post, and Steven Sharpe, "Evidence from Specialization in Private Debt Contracts," *Journal of Finance*, June, 1998, 53 (3).

highly levered, have lower coverage ratios, and have lower operating earnings relative to assets than the average bank borrower. Consistent with the view that finance companies specialize in asset-backed loans, loans made by finance companies are also likely to be secured with borrowing amounts tied to a borrowing base.

Why do finance companies specialize in loans to high-risk borrowers, while commercial banks tend to avoid them? The most obvious explanation is that bank regulators tend to discourage this type of lending, thus leaving the field open to finance companies. But, Carey et al. propose another, more subtle motivation — one that considers that lender reputation may be important. Noting that private debt contracts provide lenders significant control through restrictive covenants, they go on to point out that borrowers are naturally worried that, if they trip a covenant, lenders may use the covenants to extract concessions as part of the renegotiation process. Moreover, for commercial bankers intent on preserving market share in such an environment, a lender's

reputation for acting reasonable may be particularly important; and it is this concern about reputation that may give banks another important (non-regulatory) reason to stay out of asset-backed finance. As Carey et al. explain, "Specialization may support the conservation of reputational capital—high-risk borrowers go to lenders with a reputation for being tough and, given their clientele, such lenders will be forced to liquidate borrowers and enforce covenants with high frequency. Low-risk borrowers go to other lenders, who are better able to maintain good reputations because liquidation and enforcement actions are rarely necessary."

Overall, empirical studies of the corporate debt structure suggest that banks and other private lenders play an important role in mitigating the agency problems of debt and financial distress costs. At the same time, evidence also suggests that there are costs from using private debt relative to public debt. These costs include the costs of monitoring, higher percentage floatation costs for smaller issues, and costs of lender control (in terms of lost flexibility).

**TABLE 3**  
TWO DAY ABNORMAL  
RETURNS TO FIRMS  
ANNOUNCING LOANS

Study	Abnormal Return (-1,0) in %
James (1987)	1.93
Lummer and McConnell (1989)	0.61
Best and Zhang (1993)	0.32
Billett, Flannery and Garfinkel (1995)	0.68

### WHAT DOES THE STOCK PRICE REACTION TO BANK LOAN ANNOUNCEMENTS TELL US ABOUT WHAT BANKS DO?

While the studies reviewed in the last section provide valuable insights into the role of private lenders in the capital-raising process, they are not particularly well suited for examining the importance of banks and other private lenders in resolving information problems associated with the issuance of new claims. Information problems between managers and new investors are likely to be temporary. As a result, the debt structure of a firm at any point in time will likely reflect past information problems, but not necessarily current firm misvaluations by the market.<sup>14</sup> Studies of the influence of incremental borrowing decisions are more likely to detect the effect of information asymmetries on financing choice. For this reason, studies of the stock price reaction to bank loan announcements focus primarily on the role of banks in resolving adverse selection problems associated with new securities issues.

These problems are generally explained in the context of managers issuing public securities when they believe their stock is overvalued relative to its prospects.<sup>15</sup> Put a little differently, managers are more likely to offer securities when they expect a fall in profits after the offering (and thus think the firm is overvalued) than when they anticipate a subsequent rise in profits (and think the firm is overvalued). Of course, new investors understand management's incentives to issue new securities when a firm is overvalued and reduce the value of firms whenever managers announce a public securities offering. Because of this rational market bias against new offerings, companies with profitable new projects and good future prospects face a

financing problem: they penalize existing shareholders any time they try to issue securities. Although such underpricing can be avoided by using internally generated funds, such funds may be insufficient to finance new investments.

When internally generated funds are limited, the use of "inside" debt is likely to be a more cost effective alternative. In a 1985 *Journal of Monetary Economics* article entitled "What's Different About Bank Loans?," Eugene Fama characterized inside debt as financing that comes from lenders having access to information about the borrower that is not otherwise publicly available. Banks enjoy a unique role as an inside lenders because they obtain private information through their ongoing deposit relationship with the firm. Moreover, banks can directly participate in a firm's decision-making, for example, as a member of its board of directors.<sup>16</sup> By contrast, "outside" debtholders in public debt markets must rely on publicly available information generated by bond rating agencies, independent audits, or analyst reports. Following this line of reasoning, firms should have a tendency to turn to inside bank debt when they are undervalued by the market and have insufficient internal funds to finance upcoming projects.

A testable implication of this view that banks loans—as a source of inside debt—mitigate adverse selection problems for undervalued firms is that announcements of bank financing should be viewed favorably by the market. As mentioned earlier, James (1987) was the first to document a positive share price reaction to bank loan announcements. As is shown in Table 3, the findings of three more recent studies have confirmed James's original finding. Though these three studies vary in sample size and time period, each finds that borrowers earn positive

14. In contrast, since potential agency problems are more likely to be related to the type of asset a firm holds (and the importance of growth opportunities) studies that examine cross sectional differences in the mix or structure a firm's debt structure are better at detecting the effect of agency problems and potential financial distress costs on debt structure.

15. This explanation was originally put forth by Stewart Myers and Nicholas Majluf in their paper entitled "Corporate Financing and Investment Decisions

When Firms Have Information That Outsiders Do Not Have," *Journal of Financial Economics*, 1984, 13 (2).

16. In the United States, Lender Liability may limit bank participation in corporate government. Indeed, Randall Kroszner and Philip Strahan find that bankers tend to be represented on boards of large stable firms. See, Randall Kroszner and Philip Strahan, 1999, "Bankers on Boards: Monitoring, Conflicts of Interest and Lender Liability", Working paper.

and statistically significant abnormal returns upon the announcement of a bank loan.

The fact that the stock market response to bank loan announcements differs from the announcement effects of other securities issues raises a number of questions that are addressed in more recent papers. For example, if banks have an information advantage over outside investors, does this advantage arise from an established relationship with a borrower? Are banking relationships more valuable to some borrowers than others? Do loans made by nonbank lenders (such as finance companies) have the same valuation effects as bank loans? Answers to these questions are critical to understanding when bank lending is preferred to other types of borrowing.

In 1989, Scott Lummer and John McConnell<sup>17</sup> investigated whether banks add value as part of an ongoing relationship or at the initiation of the relationship. For example, bank loans may become inside debt only over time as the banker learns about the credit quality and growth prospects of the borrower as part of an ongoing relationship.<sup>18</sup> If an ongoing relationship is what provides banks with an informational advantage, then announcements of new loan agreements should be associated with a smaller stock price response than renewals or extensions of existing agreements. Another possibility, however, is that banks could be most valuable at the start of a credit relationship. Specifically, if banks have a comparative advantage in evaluating risky lending opportunities, then a new loan announcement may serve as a “seal of approval” concerning a prospective borrower’s credit worthiness. In this case, the positive information from a bank loan should be reflected in a firm’s stock price upon initiation of a new loan.

Using a sample of 728 loan announcements, Lummer and McConnell distinguished between new loan announcements and announcements about loan renewals and found that positive stock price responses to bank loan announcements occurred in the case of renewals, but not initiations. Based on

this result, they inferred that bank loan announcements are informative only after firms have produced information through an ongoing relationship.

Later studies by Ronald Best and Hang Zhang and Billett et al. revisited the issue of whether the valuation effects of new loan announcements differ from the valuation effects of credit renewals.<sup>19</sup> In contrast to Lummer and McConnell, both papers documented positive stock price reactions for loan initiations as well as renewals, suggesting that valuable information is revealed through initial screenings by banks as well as in the renewal process. Moreover, neither study found a statistically significant difference in the reactions to initiations versus renewals once they controlled for differences in other borrower and lender characteristics, such as the precision of analysts’ forecasts and the credit quality of lenders.<sup>20</sup>

Given the positive valuation effects of loan announcements, why do some borrowers choose to issue public securities? One explanation is that certain borrowers find bank loans advantageous while others do not. Best and Zhang addressed this question by examining whether announcement-day returns vary with the information problems borrowers face in the market. In particular, they argue that if banks produce valuable private information about borrowers, then loan announcements should convey good news to stock market investors only when public information about firm value is noisy or hard to interpret by outside investors. To test this idea, they split their sample into two groups according to the precision with which stock analysts forecast borrower earnings. Large forecast errors in earnings (measured by the difference between the most recent earnings forecast prior to the loan announcement and the firm’s actual earnings) indicate a high level of noise or uncertainty about the future prospects of the borrower. As they expected, Best and Zhang found that companies experienced positive abnormal returns when analysts’ forecast errors were high, but earned zero abnormal returns when forecast errors were low.

17. Scott Lummer and John McConnell, “Further Evidence on the Bank Lending Process and the Capital Market Response to Bank Loan Agreements,” *Journal of Financial Economics*, 1989, 25.

18. This is what Eugene Fama had in mind when he argued that bank loans are special because of the deposit relationship borrowers maintain with their bank lender. The deposit relationship, Fama speculated, was an important way for banks to obtain nonpublic information about a customer’s credit risk.

19. Ronald Best and Hang Zhang “Alternative Information Sources and the Information Content of Bank Loans” *Journal of Finance*, 1993, 48.

20. One reason that duplicating the results of Lummer and McConnell has been difficult is that properly classifying loan announcements as initiations or renewals is tricky because many announcements do not make this distinction. Even when new loans are classified correctly as initiations, most firms in this category will have already established a lending relationship with the bank through a previous lending arrangement or unused loan commitment. In fact, it is difficult to imagine that there are many public traded firms that do not have some sort of ongoing banking relationship.

Best and Zhang took their analysis a step further and reasoned that banks will add the most value when evaluating those borrowers perceived by the public to have poor earnings prospects. There are two reasons banks might create the greatest value for such borrowers. First, borrowers perceived by the public as having poor earnings prospects are the most likely to be undervalued by the market and therefore the least likely to want to issue public securities. If banks possess inside information about the credit quality of these borrowers, their choice to borrow from the bank provides a signal to the market that they are in fact undervalued. Second, the value of bank monitoring and credit evaluation is likely to be greatest when two factors are present: (1) public information does not provide a reliable guide to a firm's prospects, and (2) the firm's credit quality is suspect.<sup>21</sup>

To examine this issue, Best and Zhang split their sample again, this time sorting by revisions to forecasted earnings. Consistent with the idea that bank loans are most valuable to undervalued borrowers, those companies in the high prediction error category earned the largest abnormal returns when analysts had previously revised downward their earnings forecasts for the company.

In a recent working paper, Charles Hadlock and Chris James (2000) focus on the role of banks in resolving information problems associated with new securities issues.<sup>22</sup> In particular, they directly examine why some firms choose to borrow from public markets while others borrow from banks, even when it appears that such firms stand to gain the most from issuing public securities because of their size and credit standing. Following James (1987), this study argues that companies seek bank financing when they perceive themselves to be undervalued by the market. Correctly valued and overvalued firms prefer to avoid the cost of bank monitoring and issue public securities instead. Hadlock and James extend this argument by considering the costs associated with bank borrowing in the form of higher flotation costs for large issues, as well as or the costs of monitoring and excess control.

In this sense, Hadlock and James tie the loan announcement literature to the studies on debt

structure mix. In their framework, firms choose bank loans over public financing only when there is a high degree of uncertainty about their value. Consistent with this intuition, Hadlock and James show that firms choose bank financing over public financing (1) after periods of large stock price declines and (2) when there is great uncertainty about their stock price. They also find that the magnitude of stock price reactions varies directly with proxies for the degree to which a firm is undervalued by the market and with the extent to which market participants anticipate that firms will choose bank loans. In other words, the stock price reaction is most positive when companies that normally find it advantageous to borrow in public markets instead announce a bank loan.

The results of Hadlock and James's study raise another interesting issue: Are the bank loans announced in the financial press typical of most firms borrowing from banks? Put differently, are the bank loans announced in the financial press those that are most likely to result in a positive share price reaction? There are at least two reasons why this question may be relevant. First, unlike public securities offerings, new bank loan agreements need be announced only when they are deemed to be "material," in accordance with guidelines established by the Securities and Exchange Commission. Thus, small agreements and those considered immaterial by the firm will not be reported to the financial press. Moreover, even when companies announce loans in a press release, newspapers like the *Wall Street Journal* may run the announcement only when the editors believe the announcement is important. Second, bank loans announced in the financial press tend to be very large (both in terms of dollar value as well as relative to the size of the firm). For example, the average value of the loans in James's original study was \$72 million and constituted about 75% of the market value of the issuing firm. By comparison, the average straight debt issue in James's sample was about \$100 million and represented only 26% of the market value of the issuing firm.<sup>23</sup> Thus, there appears to be a selection bias towards announcing the largest bank loans.

21. See, Mitch Berlin and Jan Loeys "Bond Covenants and Delegated Monitoring," *Journal of Finance*, 1988, 43.

22. Charles Hadlock and Christopher James, "Bank Lending and the Menu of Financing Options", University of Florida Working paper, 2000.

23. Later studies confirm that bank loans announced in the financial press are quite large. For example, Billett, et al. report an average loan size of \$116 million (representing 77 percent of the issuing firms' common stock) and a median loan size of \$45 million. By comparison, Carey, et al. (1998) report that the median loan size in Loan Pricing Corporation's Dealscan data base for Compustat-listed firms over the same period was \$25 million.

**TABLE 4**  
CHARACTERISTICS OF  
BANK LOANS BASED ON  
LPC DEALSCAN DATA, 1987-  
1997.

	Proportion of Total (%)
Deals (15,661 observations)	
Includes a line of credit	84
Includes a term loan	37
Includes both line of credit and term loan	21

Source: Based on statistics provided by Mark Carey, Board of Governors of the Federal Reserve System.

The 1995 study by Billett et al. emphasized the influence of lender characteristics on loan announcement abnormal returns. They considered whether shareholders perceive value in bank lending that differs from other types of non-bank private lending. For their purposes, non-bank lending consists of loans from finance companies. James (1987) also studied the stock price reaction to announcements of non-bank private debt. He provided evidence that announcements of privately placed debt were associated with small negative abnormal returns—similar to those associated with public debt issues. But Billett et al. found a different result. They reported positive and (marginally) significant abnormal returns to announcements of finance company loans, and were unable to statistically distinguish between the market response to bank loans from the non-bank loan announcements.<sup>24</sup> A 1994 study by Preece and Mullineaux reached the same conclusion. Our best guess is that the difference in findings among these three studies arises from differences in the types of non-bank loans analyzed by each study. Whereas James (1987) focused on longer maturity private placements that resemble publicly traded debt contracts, both Billett et al. and Preece and Mullineaux examined mostly commitment-type non-bank loans made by non-bank lenders loans that resemble bank debt. We discuss why this distinction may be important in the next section.

In general, then, studies of the stock price reaction to new loan announcements indicate that banks play an important role in resolving adverse selection problems associated with issuing new securities. However, banks do not appear to play a unique role since borrowers from finance companies enjoy similar benefits. These findings suggest that there is something special about the type of

loans that banks make, but not necessarily that the loan is from a bank. In the next section, we explore what might be different about the types of loans banks make and why this type of borrowing could enable firms to limit the adverse selection problems of issuing securities.

#### WHY BANK LOANS ARE STILL SPECIAL

While the benefits of issuing private debt are easy to understand, why is borrowing from a bank or finance company different from borrowing in the private placement market? One reason may be that bank-type loans have different characteristics than private placements. To aid in investigating this possibility, we obtained some summary statistics of loans reported in Loan Pricing Corporation's (LPC) Dealscan data. The Dealscan data derive both from SEC filings and participating banks and include most loan agreements for medium-sized and large firms in the U.S. In sum, the Dealscan database covers over 15,000 loan "deals" involving more than 22,500 separate loans called "facilities." Each loan deal between bank and borrower can include more than one facility.<sup>25</sup>

The most notable feature of the LPC deals summarized in Table 4 is that 84% involve a revolving line of credit.<sup>26</sup> Like a credit card, a line of credit allows companies to borrow on demand up to a certain prespecified limit, and to choose how and when they will pay back their loans. Such commitment-based financing arrangements specify an interest rate that is a fixed mark-up over a benchmark rate such as LIBOR or the Prime Rate. Since most deals include only one loan facility, revolving lines of credit are the dominant form of bank financing to commercial borrowers. By comparison, this flexibil-

24. Billett et al. also find that the identity of the bank lender is important in that loans from banks with higher bond ratings elicit a higher stock price reaction.

25. For instance, a typical deal may include the following three facilities: a three-year revolving line of credit facility, a two-year term loan to start to begin immediately, and a two-year term loan set to begin two years from the deal date.

26. The statistics in Table 4 are based on a slightly smaller sample of firms that eliminates guidance lines, which are not contractually committed loans. Lines of credit include standby letters of credit. Term loans include bridge loans, demand loans, trade letters of credit, bankers acceptances, and leases.

ity in the timing of borrowing and repaying is absent in privately placed loans. For example, most private placements include provisions for punitive prepayment penalties.<sup>27</sup>

Banks also make term loans, which appear in about a third (37%) of the LPC loan deals. Nevertheless, term loans are usually made in conjunction with a credit line. In fact, only 16% of the LPC deals contain a term loan facility without a corresponding credit line facility. Banks also extend other types of loans to commercial customers, including bridge loans, standby letters of credit, leases, and bankers acceptances. But these kinds of loans together constitute less than 10% of all facilities and are almost always tied to a line of credit or term loan facility.

Three other characteristics distinguish bank-type loans from privately placed debt. First, bank loans are typically secured with collateral (see Table 2 earlier). For instance, according to a recent working paper by Philip Strahan, 78% of all lines of credit and 85% of all term loans from Dealscan are collateralized.<sup>28</sup> These loans are often secured with short-term assets such as borrowers' accounts receivables and inventory. Privately placed debt can also be collateralized with asset backed securities such as leveraged leases, collateralized trust certificates, and collateralized mortgage obligations, and with first and second mortgage bonds. However, Carey et al. (1993) report that secured debt represents less than a third of all private placements. Second, bank-type loan agreements typically carry stringent covenants that require borrowers to maintain a set of financial ratios above a certain minimum. They can also include explicit price-based covenants that tie the loan rate directly to firm performance based on financial ratios. Although covenants are also common with privately placed loans, they tend to be less restrictive and relate to levels of financial ratios only upon the occurrence of a certain event, such as a further increase in debt. Third, as mentioned earlier, bank loans tend to be short term. Strahan reports that the average maturity on lines of credit is 42 months and for term loans it is 69 months.

What, then, are the advantages of obtaining bank-type loans? For well-established companies

with access to public markets, revolving lines of credit allow companies to raise private financing quickly when they view themselves to be undervalued by the market or, alternatively, when credit risk spreads look unattractive in public markets. In short, commitment-based financing provides firms with liquidity and a kind of insurance against adverse changes in the cost of borrowing. The insurance provided by commitments arises from the fact that the rate on the commitment is a fixed mark-up over a benchmark rate.<sup>29</sup> This insurance is likely to be particularly valuable when there is considerable uncertainty about the value of the firm at the time it needs financing.

An excellent example of the value of the insurance provided by lines of credit was provided by the recent credit crunch in the Fall of 1998. As Marc Saidenberg and Philip Strahan noted in a recent Federal Reserve Bank of New York publication, the collapse of the Russian ruble and the problems at Long Term Capital Management precipitated an investor "flight to safety" to low risk-investments. This flight to quality in turn raised spreads between corporate bonds and similar maturity Treasury securities by 100 basis points, while short-term commercial paper spreads more than doubled.<sup>30</sup> As a result, through the fourth quarter of 1998, the amount of outstanding commercial paper fell by \$10 billion; but during this same period, bank commercial lending increased by \$20 billion. Saidenberg and Strahan show that nearly all of the increase in bank lending came from customers drawing on credit lines. Thus, in this instance, bankers provided a way for large corporations to avoid a spike in the cost of borrowing in public markets.

The fact that bank loans are collateralized, contain strict covenants, and are typically short term improves a bank's ability to monitor informationally-intensive loans. By securing a loan, banks ensure the seniority of their loans over other debt issues made by the firm. Moreover, a senior position in the payoff structure increases the return and therefore the incentives of lenders to monitor. The return to monitoring is higher for senior creditors because any benefits of monitoring (in terms of timely liquidation

27. See Carey, et al. (1993).

28. Philip E. Strahan, "Borrower Risk and the Price and Nonprice Terms of Bank Loans", October 1999.

29. The insurance is limited, however, since commitments contain so called "material adverse change" clauses that allow the bank to refuse to advance funds in the face of a marked decrease in the credit quality of the prospective borrower.

30. Marc R. Saidenberg and Philip E. Strahan, "Are Banks Still Important for Financing Large Businesses?," *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, August 1999.

tions) go to senior creditors.<sup>31</sup> Similarly, a short maturity increases a bank's ability to monitor the loan by requiring firms to roll over their bank debt often, which allows for frequent reevaluations by the banks.

Although the share of bank-type loans offered by banks has declined through time (as we saw in Figure 1), banks continue to dominate the loan market. For example, Carey, et al. reported that banks accounted for approximately 90% of all bank-type loans made during the period 1987-1993. The dominance of banks in this market suggests that banks have a comparative advantage in providing loans with the characteristics described above. In a recent working paper, Anil Kashyap, Raghuram Rajan, and Jeremy Stein argue that this comparative advantage arises from the dual role of banks as deposit takers and providers of highly liquid loans.<sup>32</sup> They point out that a revolving line of credit is the mirror image of a demand deposit in that it allows borrowers to withdraw money on demand and pay back when they want to. They argue that it is efficient for banks to offer both services together because both deposit-taking and commitment lending require banks to hold large stocks of liquid assets. So long as the liquidity needs of borrowers do not exactly match the needs of depositors, the combination of loan commitments and deposit-taking enables banks to add value by reducing the total amount of cash or liquidity necessary to perform both functions.

The Fall 1998 credit crunch provides an example of how such synergies between deposit-taking and lending work. In their flight to safety, investors transferred funds from risky securities such as corporate bonds and commercial paper into safe investments like bank deposits.<sup>33</sup> This flow of funds into deposits increased the liquidity stock of banks.

Simply holding these liquid stocks as reserves would have been costly for banks since reserves earn small or zero returns. However, the rush to safe deposits was offset by an increase in the demand for liquidity as companies drew down their credit lines. This allowed banks to efficiently re-allocate liquid funds to their best use. Kashyap et al. hint at why banks sometimes also offer other types of loans such as term loans. The basic argument is fairly simple: once a bank has investigated a firm for a line of credit, it has a comparative advantage in offering other types of loans as well. Table 4 provides support for this argument by showing that, although lines of credit are frequently offered without term loans, the opposite is rarely true.

## CONCLUSION

Bankers appear to play a special role in providing commitment-based financing to corporations. This type of lending is important not only for small firms that lack access to public debt markets but for large and medium-size firms as well. For larger companies, commitment-based financing provides flexibility that is particularly valuable when a firm faces an immediate need for financing when interest rates in public debt markets are prohibitively high. In addition, commitment-type financing provides flexibility which may be particularly important when a firm must raise funds but believes that it is currently undervalued by the market. The fact that commitment-based financing is particularly valuable when firms are undervalued in the market is also likely to be the best explanation of why announcements of these types of loans result in a positive stock price reaction.

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31. See, Cheol Park, "Monitoring and the Structure of Debt Contracts," *Journal of Finance*, forthcoming 2000.

32. Anil K. Kashyap, Raghuram Rajan, and Jeremy C. Stein, "Banks as Liquidity Providers: An Explanation for the Co-Existence of Lending and Deposit-Taking," National Bureau of Economic Research working paper 6962, February 1999.

33. See Saidenberg and Strahan (1999).

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