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Valuation effects of bank financing in acquisitions[☆]

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Abstract

In a sample of 115 cash tender offers between 1990 and 1996, banks extend financing in 70% of the tender offers and finance the entire tender offer in half of these takeovers. Bank financing of tender offers is more likely when internal cash reserves are low. Acquisitions that are entirely financed by banks are associated with large and significantly positive acquirer announcement returns. Announcement returns are also positively related to the fraction of the acquisition value financed by bank debt. The benefits of bank financing are most important for both poorly performing acquirers and acquirers facing substantial informational asymmetries. Our results suggest that bank debt performs an important certification and monitoring role for acquirers in tender offers.

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1. Introduction

The effect of informational asymmetries between firms and external capital market participants has received considerable theoretical and empirical attention. According to received theory, financial intermediaries (and banks in particular) serve as a bridge between firms and external capital markets due to their superior information collection and evaluation capabilities (Leland and Pyle, 1977; Campbell and Kracaw, 1980; Diamond, 1984).

A bank's informational advantage can influence its client firm's investment policy. Consider the case of a firm deciding whether or not to pursue an acquisition that has a positive net present value. The announcement of the acquisition can be interpreted as management's pursuit of private benefits, such as maximization of firm size or growth, at the expense of shareholder wealth (Jensen, 1986). Without a credible means of communicating the profitability of the acquisition to capital market participants, managers might forgo this acquisition to avoid the decline in stock price associated with the acquisition. In this framework, certification of the acquisition's profitability by an informed investor such as a bank can help overcome the information disparity between the firm and external capital markets, permitting the firm to pursue the value-enhancing investment policy.

The theoretical literature identifies several potential ways in which a bank can influence a borrower's investment policy. In Diamond (1984), banks use their informational advantage to monitor compliance with loan covenants. In the event of default, this monitoring allows banks to renegotiate the loan contract. The prospect of unfavorable revisions in bank loan contingencies and/or interest rates during renegotiations serves as an incentive to avoid poor investment choices. In this framework, bank debt provides an incentive to undertake value-enhancing investment decisions.

Screening is an alternative channel by which banks can influence a client firm's investment policy. In Boyd and Prescott (1986) and Diamond (1991), banks screen out bad investment proposals and fund only the attractive proposals. Therefore, the bank's decision to provide funding conveys a positive signal about project profitability to external capital market participants. Thus, bank screening has a positive certification effect. In related work, Almazan and Suarez (1998) argue that bank debt alleviates conflicts of interests between shareholders and managers over a firm's investment policy. James (1987), Lummer and McConnell (1989), and Billett et al. (1995) show that stock prices respond favorably when firms announce bank loans, which is consistent with both the certification and the monitoring role for banks.

In contrast to these arguments, Rajan (1992) points out that the bank's information advantage can be detrimental to shareholders. He shows that the bank's information monopoly results in a surplus that is appropriable by the bank and that this lowers the firm's incentive to pursue shareholder value-maximizing investments. Evidence of ex post appropriation by banks is reported by Weinstein and Yafeh (1998) who find that Japanese firms with close bank ties face relatively high borrowing costs. Kracaw and Zenner (1998) find that bank loan

announcements are associated with significantly negative announcement returns when an officer of a bank is a member of the borrower's board of directors. In such a situation, banks are likely to have greater access to information and influence over the client firm's investment policy.

A bank's interest as a creditor might also diverge from the interests of shareholders. For example, a bank might favor an acquisition that diversifies the firm's operations because it lowers the variance of the firm's cash flows and enhances the value of its debt claim. Similarly, a bank that is concerned about the firm's ability to repay its debt might have incentives to promote acquisitions for firms with relatively unattractive investment opportunities but with stable cash flows. Kroszner and Strahan (2000) present evidence highlighting the importance of conflicts of interests between creditors and shareholders. They show that legal liability arising from conflicts of interests between banks and shareholders serves as a deterrent to banker representation on corporate boards in the US. According to these arguments, bank financing of acquisitions can be detrimental to shareholder wealth.

This paper investigates the effect of bank financing on a firm's investment decisions using a sample of 115 cash tender offers between 1990 and 1996. Despite the importance of banks as informed intermediaries, there is limited direct evidence on whether and how banks influence firms' investment decisions. Acquisitions provide a natural setting to investigate the effects of banks on firms' investment decisions because details of acquisitions are generally reported in a timely and complete manner. We examine whether bank financing is associated with acquisitions that enhance shareholder wealth or whether banks fund acquisitions that benefit the bank at the expense of shareholder wealth.

Our paper differs from prior studies of acquisitions because we focus on the *source of financing* (as opposed to the method of payment) in tender offers. It is well known that the method of payment for an acquisition has an important influence on acquirer returns, with acquirers earning returns that are close to zero, on average, in cash tender offers and significantly negative returns in stock exchange offers. However, the existing literature does not distinguish between whether tender offers are financed by internally generated funds or by bank borrowings, which is the focus of our paper. Our paper is also related to prior studies that examine bank involvement in corporate control contests. For example, Kracaw and Zenner (1996) study bank involvement in leveraged recapitalizations and the effect on the bank's equityholders. Our analysis differs in that we investigate the effect of bank involvement on the borrowing firms' equityholders.

We investigate the circumstances in which firms choose to obtain bank financing for the tender offer. We find that acquirers seek bank financing for acquisitions primarily when they have lower cash reserves and a large relative transaction size. These findings are consistent with Myers and Majluf (1984) who suggest that informed bank debt can substitute for the availability of financial slack. The acquisitions financed by bank debt appear to be similar, however, to those funded by financial slack. Bank debt is equally likely in diversifying and related acquisitions and banks do not appear to avoid financing acquisitions of high growth targets.

Two-day cumulative abnormal returns (CARs) for acquirers are significantly higher when the acquisition is financed entirely with bank debt. Tender offers financed entirely by bank debt are associated with significantly positive average two-day CARs of 2.08% and three-day CARs of 4%. Acquisitions financed entirely with internal funds, in contrast, have statistically insignificant average CARs of -0.32% and 0.54% over two- and three-day windows, respectively. The positive CARs for bank-financed acquisitions are in contrast to much of the existing evidence on acquirer returns, and indicate that shareholders view acquisitions financed entirely by banks favorably. In a multivariate framework, we find that the announcement returns for acquirers are positively related to the extent of bank financing obtained for the tender offer.

We explore several explanations for the positive market response to announcements of bank-funded acquisitions. We examine whether the positive CARs arise because the ability to launch a tender offer conveys a positive signal about an acquirer's financial health. We also examine whether the ability to obtain bank financing for an acquisition conveys positive news about the bank's assessment of the firm's prospects. We explore the possibility that the announcement of bank financing conveys information regarding the extent to which the acquirer's equity is overvalued. If our sample firms were expected to finance the acquisition with equity, the decision to use less risky bank debt would be viewed by investors as a positive signal regarding firm value. A fourth possibility that we investigate is that managerial ability drives both the financial structure of the acquisition as well as the market's reaction. This could be the case if managers with high ability make valuable acquisitions and if banks are more comfortable lending to able managers. Finally, we explore whether the market reaction to bank-financed acquisitions reflects the expectation that acquiring managers will be subject to the discipline of bank debt and that this monitoring is expected to result in more profitable acquisitions.

We find that positive CARs in bank-funded offers accrue primarily to firms with poor performance and high information asymmetry. The market's response does not appear to depend on whether the acquisition is financed with an existing bank loan or a new bank commitment. We also find that bank debt contracts contain extensive contractual agreements that place restrictions on managers' future investment choices. However, we do not find evidence that bank debt is detrimental in circumstances when the bank's informational monopoly is expected to be substantial. We argue that the evidence is most consistent with the view that banks actively monitor and certify the quality of acquisitions. Our results do not offer much support for the view that banks distort a firm's investment policies.

A caveat to our interpretation is worth noting. Our sample consists of firms that were successful in obtaining funding for acquisitions. However, if some firms face limited alternatives to bank financing, a bank's refusal to extend credit might cause some firms to forgo the acquisition. In this case, we would not observe the acquisitions that were considered but had to be cancelled due to lack of bank financing. This problem would be most acute for small acquirers that would have limited recourse to alternative financing mechanisms. However, our results show that

the CARs for bank-financed acquisitions are more positive for small acquirers. Hence, we suspect that this problem is unlikely to severely confound our interpretation, although we acknowledge the need for caution in generalizing the results.

Our paper adds to evidence from recent studies that link acquirer returns with financing sources. Harford (1999) finds that cash-rich acquirers tend to make value-reducing acquisitions. As we show, such firms are less likely to seek bank financing. Taken together, these findings suggest that substantial financial slack can be costly for shareholders because it insulates them from the monitoring effects of informed intermediaries such as banks. Using a sample of Japanese mergers, Kang et al. (2000) find that Japanese firms with close links to a main bank tend to make value-enhancing acquisitions. Neither study directly explores the source of financing of acquisitions. This paper complements existing literature by showing a direct link between the valuation effects and the source of financing for acquisitions.

The paper is organized as follows. Section 2 describes the data. Section 3 discusses the determinants of bank involvement in financing tender offers. Section 4 presents the analysis of acquisition announcement returns. Section 5 concludes.

2. Data

We obtain the sample of cash tender offers between 1990 and 1996 from Securities Data Corporation (SDC). To be included in the sample, we require that: (1) the acquirer is not a utility or financial services company, (2) both the acquirer and target are listed on the NYSE, AMEX, or NASDAQ, (3) daily stock returns for the acquirer for at least 200 days before the announcement date are available on CRSP, and (4) data on the acquirer and the target are available on COMPUSTAT for the fiscal year before the acquisition. A total of 152 cash tender offers satisfy these criteria. We focus on cash tender offers because mergers are predominantly financed with equity while we are interested in identifying distinguishing features of takeovers financed with bank debt.¹

We use three sources to identify the source of financing in acquisitions, cross-checking the information when data is available from more than one source. SDC provides financing information for some takeovers, but from 1994 to 1996, a more reliable and complete source of information is available: the 14D-1 filings of the acquirer. Regulation S-K of the Securities Act of 1933 and the Securities Exchange Act of 1934 require the acquirer to disclose the sources of the funds needed to complete the transaction. Because the 14D-1 filing is the most comprehensive source of this information, we rely on it whenever it is available. In the majority of cases

¹Twelve tender offers involved some payment in the form of equity and are hence excluded from the sample. Banks are involved in providing partial financing in seven of these tender offers. Inclusion of these observations in the sample yields qualitatively similar results regarding the effects of bank involvement. We also do not observe any of our sample firms switching the method of payment from cash to equity or from equity to cash from the initial announcement to offer completion.

where bank financing is used, the 14D-1 either includes a bank loan commitment letter when a new bank loan is obtained, or details of the credit agreement when an existing bank loan is used. In a few cases, however, the 14D-1 filing states that the acquirer intends to obtain a bank loan for the acquisition. In these cases, we treat the acquisition as bank-financed. In all such cases, we are able to verify that a bank loan was actually obtained by examining subsequent amendments to the original 14D-1 filing. An example of such a financing disclosure follows:

Tender Offer by Rockwell International for Reliance Electric shares
(Announcement date: 10/20/94)

Rockwell plans to use funds it has available in its cash accounts and by borrowing under a revolving credit agreement to be negotiated by Rockwell with a group of banks for such capital contribution. Although there are no commitments by such banks at this time, Rockwell believes such credit agreement will be in effect prior to the initial Expiration Date.

(Excerpt from 14D-1 filed by Rockwell International with the SEC on 10/21/94)

An amendment to the 14D-1 confirms that the acquirer obtained loans from certain named banks for the acquisition. In this case, the loan details could also be confirmed from the Dealscan database. Using this information, we categorize this takeover as financed with a combination of internal cash and bank debt.

Although the 14D filings are comprehensive, they are available in only 69 acquisitions in the sample. Therefore when a 14D is unavailable, we search Lexis-Nexis for announcements of financing disclosure, as well as the SDC and Dealscan databases. Using these three sources yields a sample of 115 acquisitions for which we are able to identify the source of financing. An example of such a financing disclosure follows:

Tender Offer by Quaker Oats for Snapple Beverage shares
(Announcement date 11/02/94)

The transaction was financed through a letter of credit provided by NationsBank of NC NA for up to \$2.5 billion.

(Text of SDC source of financing data item for this takeover).

Although the 14D-1 was not available to us in this case, we confirm details of the loan from the Dealscan database. This takeover is categorized as financed entirely with bank debt.

For all the 115 tender offers for which we have financing data, we classify whether banks finance the tender offer package entirely, partially or not at all. We define a discrete variable, *ONLYBANK*, which equals one if the acquisition is financed entirely by bank debt and zero otherwise. We construct an indicator, *PARTBANK*, which equals one if the acquisition is at least partly financed by bank debt and zero when bank debt is not used.

When bank debt is used, we collect information on whether the bank loan is a new arrangement, an existing loan, or an existing loan revised to accommodate the proposed acquisition. Of the 81 bank loans in the sample, 31 loans are existing agreements, 14 loans represent amendments and/or revisions of existing loans, and 36 are new credit agreements. We define a dummy variable, *NEWLOAN*, as equal to one if the bank loan is a new or a revised loan and zero otherwise. The dummy variable *OLDLOAN* is equal to one if the bank loan is an existing loan and is equal to zero otherwise. Both variables are set to zero when bank debt is not used. Our classification scheme treats revised loans as new agreements. In unreported tests, however, we classify these as existing loans and obtain qualitatively similar results throughout.

2.1. Summary of bank involvement

Panel A of Table 1 shows that bank debt is used to finance at least part of the tender offer package in 81 (70%) of the 115 acquisitions. Bank debt represents the only source of financing in 40 (35%) of the tender offers, making such loans the most frequent source of financing. Cash from internal operations is used to finance the entire tender offer in 26 (22%) cases in the sample. Of the 81 takeovers in which at least some bank debt is used, we are able to obtain data on the amount of the bank loan in 67 cases. Panel B of Table 1 shows that the average amount of the bank loan is \$1.25 billion, but the median loan amount is much smaller at \$350 million. The average ratio of the bank loan amount to the value of the transaction is 7.66, with a median of 1.56. There are two reasons why firms typically borrow much more from banks than is needed solely to finance the acquisition. First, in takeovers for which we have loan-specific data from Dealscan, we find that the bank loans are frequently taken for multiple purposes including the specific takeover, debt repayment, commercial paper backup, and general corporate purposes. Thus, sample firms often combine multiple financing requirements when they borrow from banks. Second, many acquisitions are financed by existing agreements and lines of credit, which are typically much larger than the amount needed to finance the acquisition.

We also construct a continuous variable, *BANKPCT*, to measure the degree to which the acquisition is financed by bank debt. For acquisitions that are entirely financed by bank debt, *BANKPCT* equals one, and it equals zero when no bank debt is used. Computing the exact percentage of the transaction financed by banks is, however, complicated because the bank loan amount typically exceeds the transaction value even when banks finance the tender offer only partially. Therefore, for partially bank-financed tender offers, we assume that acquisitions are funded in the same proportion as the firm's ratio of bank debt to internal financial slack. Thus, in partially bank-funded offers we compute *BANKPCT* as the ratio of bank debt to the sum of bank debt, cash, and marketable securities. Table 1 shows that according to this definition, 59% of the transaction amount is, on average, financed by bank debt.

We compute an alternative measure of the degree of bank loan financing that does not make any assumption of the bank's financing in partially bank-financed offers.

Table 1
 Summary statistics of bank loan involvement
 This table shows involvement of banks in financing of 115 successful cash tender offers over the period 1990 to 1996. The sample of cash tender offers is obtained from the Securities Data Corporation (SDC). The source of financing data is obtained from SDC, 14D-1 filings, and the DealScan database of the Loan Pricing Corporation.

Panel A:

Description	Number of firms	Percentage (%)
Tender offers with any bank financing (PARTBANK = 1)	81	70
Tender offers financed entirely by banks (ONLYBANK = 1)	40	35
Tender offers financed partially by bank debt	41	36
Tender offers financed entirely by internal funds	26	22
Tender offers financed by internal funds and non-bank debt	3	3
Tender offers financed by internal funds and private equity	3	3
Tender offers financed by commercial paper and non-bank debt	2	2
Tender offers financed with new or revised bank loans (NEWLOAN = 1)	50	43

Panel B:

Description	Mean	Median
Amount of bank loan (millions) ^a	\$1,251	\$350
Bank loan amount/value of transaction ^a	7.66	1.56
Bank loan amount/acquirer market value of equity ¹ (LOANAMT)	0.60	0.43
Proportion of offer financed by bank loan ^b (BANKPCT)	0.59	0.82
Number (percentage) of acquiring firms with existing bank debt ^c	91 (97.85%)	
Amount of existing bank debt for acquiring firms (\$ million) ^d	\$916.5	\$271
Existing bank debt /acquirer market value of equity	0.25	0.14

^aBank loan amount data is available in 67 of the 81 bank loans.

^bFor tender offers partially financed by banks, the proportion of offer financed is computed as the ratio of bank loan amount to the sum of the bank loan amount and acquirer's cash and marketable securities.

^cExisting bank debt data is available for 93 acquiring firms.

^dExisting bank loan amounts are available for 82 of the 91 acquiring firms with existing bank debt.

This measure, LOANAMT, is defined as the ratio of bank debt amount to the market value of the acquirer's equity. This variable is set to zero when bank debt is not involved in offer financing. Table 1 shows that LOANAMT averages 0.60.

We also collect data on the magnitude of existing bank debt from the 10-K reports in the year prior to the acquisition. We are able to collect this data for 93 of the sample firms. Virtually all the firms maintain bank debt in their capital structure prior to the acquisition. Panel B shows that 91 of 93 (97.9%) firms have some bank debt. For 82 of these firms, we can calculate the amount of bank debt and find that the amount is typically sizeable. The average (median) bank debt amount is \$916.5 million (\$271 million). This represents 25% of the acquirer's equity market value one year prior to the acquisition announcement. These statistics are consistent with the patterns on bank debt reported in Houston and James (1996) who note that banks are a major source of financing for U.S. firms.

3. Determinants of the choice of bank financing

We examine the determinants of bank involvement in tender offer financing as a function of acquirer-specific and transaction-specific characteristics. If banks exercise their informational advantage to enhance the value of their debt claim at the expense of shareholder wealth, we expect that bank financing is more likely to be observed in transactions that would be beneficial to creditors. However, if banks use their informational advantage to monitor investment decisions, acquisition characteristics beneficial to shareholders would be expected. We also explore whether the decision to obtain bank financing is related to the availability of internal funds.

3.1. Cash availability and relative size

Myers and Majluf (1984) suggest that firms prefer to use financial slack over external financing for new investments, implying a negative relation between financial slack and the use of bank debt. Because large acquisitions require greater financing for which internal funds can be insufficient, we also expect a positive relationship between the relative size of the acquisition and the use of bank debt.

We measure the financial slack of the acquirer, ACASH, by the ratio of cash plus marketable securities to the book value of total assets of the acquirer. Because normal levels of cash are likely to vary across industries, ACASH is defined in excess of the median ratio for all firms in the same three-digit SIC code. The results are qualitatively similar, however, if we do not adjust ACASH for industry medians. The ratio of the market value of equity of target to the market value of equity of the acquirer, RELSIZE, is used as a measure of the relative size of the target. Here, and in the variable definitions that follow, accounting values are measured as of the fiscal year-end immediately prior to the announcement date.

3.2. *Acquirer prior stock price performance*

Hadlock and James (1998) argue that firms obtain bank financing when market conditions for raising external financing from public capital markets are unfavorable. They find that the likelihood of bank financing is negatively related to the firm's prior stock price performance. This suggests that acquirers with poor stock price performance prior to the tender offer are more likely to finance the acquisition with bank debt.

The acquirer's one-year prior stock price return, *ARETURN*, defined as the percentage change in its stock price from thirteen months before to one month before the announcement date minus the return on the CRSP value-weighted index over this period, is used to proxy for its past performance.

3.3. *Relatedness of the acquisition*

Amihud and Lev (1981) argue that managers enter into value-decreasing diversifying acquisitions because they can insure themselves against downturns in their current business. Alternatively, managers doing poorly in managing their current firm might want to try their hand at a new business (Shleifer and Vishny, 1990). In these circumstances, managers could have an incentive to overpay for an unrelated business. If diversifying acquisitions represent negative net present value (NPV) transactions as suggested by Morck et al. (1990), and if banks have the ability to screen negative NPV projects, we expect an inverse relation between bank involvement and diversifying acquisitions.

An alternative prediction arises from arguments by Lewellen (1971) who suggests that conglomerates can take on higher levels of debt since their cash flow variability is lower, making the firm more attractive to lenders. Shleifer and Vishny (1992) argue that the ability to liquidate assets in those industries that are least afflicted in bad states of the world allows diversified firms to have a higher debt capacity. Thus, banks could prefer lending for diversifying acquisitions because the combined firm could be less likely to default in some states of the world.

We use a measure of acquisition relatedness similar to that used by Morck et al. (1990), based on four-digit SIC codes of the target and acquirer obtained from the Dun and Bradstreet Million Dollar Directory. The indicator variable, *RELATED*, is defined to be equal to one if any of the target's SIC codes belong to any of the first three of the acquirer's SIC codes, and is equal to zero otherwise.

3.4. *Target growth opportunities*

Morck et al. (1990) find significantly negative acquirer returns for acquisitions of rapidly growing targets. They argue that in these cases managers pursue maximization of growth rather than firm value, because they want to ensure the continuance of the firm. To the extent that acquisitions of high growth targets are more likely to represent negative NPV transactions, we expect that such acquisitions will be less likely to be financed by bank debt.

To measure the growth opportunities of the target, we define the target's market-to-book ratio as the sum of market value of common equity and book value of total assets less book value of common equity, expressed as a fraction of book value of total assets. Since market-to-book ratios vary across industry, we use TGTMB, the difference between the target's market-to-book ratio and the median market-to-book ratio for all firms in the same three-digit SIC code.

3.5. *Acquirer stock price volatility*

Hadlock and James (1998) find that the likelihood of bank financing increases with a firm's stock price volatility. They argue that the greater the stock price volatility, the greater is the difficulty in valuing the firm and hence the greater is the likelihood of using a well-informed inside lender. Hence, we expect a positive relationship between the use of bank debt and acquirer stock price volatility. As a measure of acquirer stock price volatility, STDDEV, we use the standard deviation of common stock returns over the period –210 trading days to –60 trading days relative to the initial announcement date.

3.6. *Bidder managerial equity ownership*

Lewellen, Loderer, and Rosenfeld (1985) find that announcement returns for acquirers are positively related to the fraction of the acquirer's shares owned by acquirer management and argue that increased equity ownership provides stronger incentives for managers to pursue value-enhancing acquisitions.² If positive NPV acquisitions are more likely to be proposed when acquirer managerial ownership is high, and if banks are more likely to ratify positive NPV transactions, we expect a positive association between acquirer managerial ownership and bank involvement in acquisitions. A positive relation between managerial ownership and bank financing can also arise due to risk aversion. May (1995) argues that high ownership makes managers risk averse, making them more likely to engage in diversifying acquisitions. If banks' role as creditors also makes them risk averse, banks might be more likely to support diversifying acquisitions. However, managerial risk aversion can also lead acquirers with high management ownership to seek bank certification for shareholder value enhancing acquisitions. Zwiebel (1996) develops a model where managers voluntarily choose monitored debt contracts to credibly constrain their own perquisite consumption and future empire building. According to this analysis, high ownership managers employ bank debt to certify the acquisition's profitability to shareholders. The management ownership variable, MOWN, is the fraction of common stock owned by the acquirer's officers and directors and is obtained from the proxy statement prior to the announcement date.

²Evidence on the effect of management ownership and acquirer performance is mixed. Hubbard and Palia (1995) argue that the relation is non-monotonic, while Loderer and Martin (1997) find no relation between management ownership and acquirer returns.

3.7. Other variables

In addition to the bank involvement variables, and the variables defined in Section 2.1, we use the following control variables in this paper. PREMIUM is defined as the ratio of the bid price to the target's stock price one month before the announcement. The acquirer's leverage ratio, LEVERAGE, is defined as the total debt of the acquirer scaled by the book value of total assets. Finally, we use ACQMB, the difference between the acquirer's market-to-book ratio and the median market-to-book ratio for all firms in the same three-digit SIC code as a measure of the acquirer's investment opportunities.

Table 2 reports the means and medians of acquisition characteristics for the entire sample of 115 takeovers and for subsamples stratified by the source of financing. Acquisitions involving bank debt are of larger relative magnitude. The ratio of the market value of the target to the market value of the acquirer is 6.3% when no bank debt is used, 16.7% when the deal is partially financed by bank debt, and about 26% when the deal is entirely financed by banks. Bank financing is also more prevalent when firms have relatively low financial slack. The industry-adjusted ratio of cash and marketable securities to assets, ACASH, averages 2.7% when banks are uninvolved, 0.9% when banks are partially involved, and -1.9% when banks finance the entire offer. There is also some evidence that bank commitments are related to the prior performance of the acquirer. Acquirers' prior one-year market-adjusted stock returns average -9.9% when no bank debt is used, but average -25.3% when banks finance the entire tender offer. These comparisons suggest that firms rely on bank debt in circumstances when internal resources are unlikely to be sufficient to finance the tender offer, a pattern consistent with Myers and Majluf's (1984) pecking order hypothesis. Finally, bank involvement appears to be related to management equity ownership in acquiring firms. Bank financing of offers appears more likely when acquirer managers own a higher fraction of the firm's shares.

A potential explanation for why bank financing and managerial ownership are positively related is that both banks and high ownership managers are risk averse and support diversifying acquisitions. This explanation is not, however, borne out by our data. There is no significant difference in the percentage of related acquisitions between bank-financed tender offers and those financed by internal cash reserves. In the sample, 44% of the takeovers without bank financing are in related industries, while 54% of the partially bank-financed acquisitions are related. The difference is not statistically significant using a χ^2 test. This pattern also holds for tender offers financed entirely by banks, 50% of which are related. These statistics suggest that banks do not selectively finance diversifying acquisitions.

We also explore whether the nature of the acquisition varies systematically with the financing of the offer. Overall, 50% of the acquisitions are in related industries, but there is no noticeable difference between the fraction of related acquisitions in the subsamples of bank and non-bank-financed transactions. Bank-financed acquisitions are more likely to involve multiple bidder contests. However, bank involvement in acquisitions does not appear related to whether the takeover is hostile, or whether the acquirer is a white knight.

Table 2
Summary statistics of acquisition characteristics

This table shows summary statistics for acquirer and acquisition characteristics for the sample of 115 cash tender offers from 1990 to 1996 and for subsamples where the acquirer uses no bank debt, or only bank debt, or only bank debt to finance the acquisition. The sample of cash tender offers is obtained from the Securities Data Corporation (SDC). The source of financing data is obtained from SDC, 14D-1 filings, and the DealScan database of the Loan Pricing Corporation. The table presents the mean of each characteristic, with the median in parentheses. RELSIZE is defined as the ratio of the market value of equity of the target to the market value of equity of the acquirer. The acquirer's cash and marketable securities to assets ratio (ACASH), the acquirer's market-to-book ratio (ACQMB), the target's market-to-book ratio (TGTMB), and the acquirer's total debt-to-assets ratio (ACQLEV), are adjusted for industry effects by subtracting the median ratio of these variables for firms with the same three-digit SIC code. ARETURN (TRETURN) is defined as the one-year acquirer (target) stock return immediately prior to the announcement date in excess of the CRSP value-weighted index. MOWN is the fraction of common shares owned by management and is obtained from the latest proxy statement prior to initial announcement. PREMIUM is defined as the initial offer premium scaled by target stock price one month before initial announcement. RELATED equals one if any of the target SIC codes is common to the acquirer's first three SIC codes and is zero otherwise. The last four rows summarize indicator variables for whether the takeover was hostile, was a multiple-bidder contest, had a white knight, or included an acquirer who was also the first bidder. All accounting values are measured at fiscal year-end before the initial announcement. The table reports tests of significance of differences for each variable in column (3) and column (4) with the value of that variable in column (2), a, b, and c denote significance at 0.01, 0.05 and 0.10 levels respectively, using a *t*-test for difference in means and a Wilcoxon signed rank test for difference in medians. A χ^2 test is used to test for differences in proportions for the variable RELATED, and the hostile, multiple bidder, white knight, and first bidder indicators.

	Takeovers All (1)	Takeovers No Bank Debt (2)	Takeovers Partially Financed With Bank Debt (3)	Takeovers Entirely Financed With Bank Debt (4)
Market Value of Target Equity/Market Value of Acquirer Equity (RESIZE)	0.168 (0.091)	0.063 (0.018)	0.167 ^a (0.099) ^a	0.259 ^a (0.172) ^a
Acquirer Cash + Marketable Securities/Book Value of Total Assets (ACASH)	0.005 (-0.014)	0.027 (0.0005)	0.009 (-0.002)	-0.019 (-0.023) ^c
Acquirer Market to Book Ratio (ACQMB)	0.166 (0.073)	0.128 (0.107)	-0.024 (-0.023)	0.393 (0.086)
Target Market to Book Ratio (TGTMB)	0.065 (-0.163)	0.133 (-0.220)	-0.235 (-0.259)	0.316 (-0.082)
Acquirer Total Debt/Book Value of Total Assets (ACQLEV)	0.054 (0.047)	0.074 (0.064)	0.058 (0.042)	0.034 (0.025) ^a
Acquirer 1-Year Stock Return (ARETURN)	-0.116 (-0.108)	-0.099 (-0.106)	0.005 (-0.073)	-0.253 ^c (-0.169)

Table 2 (continued)

	Takeovers All (1)	Takeovers No Bank Debt (2)	Takeovers Partially Financed With Bank Debt (3)	Takeovers Entirely Financed With Bank Debt (4)
Target 1-Year Stock Return (TRETURN)	-0.240 (-0.208)	-0.283 (-0.426)	-0.192 (-0.212)	-0.252 (-0.124)
Acquirer Managerial Ownership (MOWN)	0.108 (0.034)	0.041 (0.020)	0.095 ^a (0.038) ^a	0.179 ^a (0.070)
Tender Offer Premium (PREMIUM)	0.471 (0.433)	0.407 (0.338)	0.539 ^c (0.505) ^c	0.456 (0.404)
Relatedness (RELATED): % of takeovers where RELATED = 1	50%	44%	54%	50%
Hostile Takeover Indicator: % of takeovers where takeover is hostile	7.83%	5.88%	($\chi^2 = 0.68$) 4.88%	($\chi^2 = 0.26$) 12.50%
Multiple Bidder Indicator: % of takeovers with multiple bidders	7.83%	2.94%	($\chi^2 = 0.04$) 4.88%	($\chi^2 = 0.94$) 15.00% ^c
White Knight Indicator: % of takeovers where acquirer is a white knight	1.74%	0%	($\chi^2 = 0.18$) 0%	($\chi^2 = 3.12$) 5.00%
First Bidder Indicator: % of takeovers where acquirer is the first bidder	92.17%	100%	95.12%	($\chi^2 = 1.75$) 90.00% ^c
			($\chi^2 = 1.70$)	($\chi^2 = 3.59$)

We estimate four models to predict the probability that bank financing will be used and the extent of bank financing in tender offers. Column (1) of Table 3 presents estimates from a probit model for the probability that a bank finances a tender offer at least partially. We find variables intended to proxy for firms' requirements for financing to be important. Specifically, bank financing is more likely to be observed when acquirers' internally generated cash flow is low and the relative size of the transaction is large. Bank debt is also more likely to be observed when managerial equity ownership is high. Transaction-specific characteristics, however, do not appear to have much influence on the use of bank debt. Bank involvement does not appear to depend upon whether the acquisition is of a target in a related industry or whether the target possesses substantial growth prospects. There is also little evidence that banks avoid lending to acquirers that have experienced poor prior performance.

Column (2) reports results from a probit model that estimates the probability that an acquisition is financed entirely with bank debt. Similar results obtain regarding the expected requirement for financing. The probability that the entire offer is bank-financed is negatively related to the acquirer's internal cash flow and one-year stock return, and is positively related to the relative size of the acquisition. Bank financing is also positively related to acquirers' management ownership.³ This relationship is consistent with the view that managers owning a high percentage of the firm's equity use bank debt to certify investment decisions. According to Zwiebel (1996), such managers choose to finance their investments with monitored debt to credibly communicate their profitability to investors.

Column (3) presents results from a Tobit model that uses BANKPCT, the fraction of the tender offer financed by bank debt, as the dependent variable. As with the previous results, the fraction of the transaction financed by banks decreases with the availability of internal financial slack and increases with managerial ownership. The coefficient on relative size, though positive, is statistically insignificant.

Column (4) shows estimates of a Tobit regression of LOANAMT on acquisition and acquirer characteristics. As with the discrete bank involvement variables, the results show that the relative size of the acquisition is an important determinant of the extent of bank financing. In this model, the coefficient on ACASH, while negative, lacks significance at conventional levels.

As discussed earlier, several acquisitions in the sample are financed with existing bank debt, which reduces the need for an acquirer to seek new financing sources. Therefore, in column (5) we also estimate a probit model that an acquisition is financed by new or revised bank debt (i.e. NEWLOAN=1). The results for this specification are similar. The likelihood of a new bank loan increases when the firm's cash reserves are low and when the relative size of the transaction is large. In

³In unreported tests, we also include the square of management ownership to account for the possibility that high levels of ownership make managers more risk averse and increase incentives to pursue diversifying acquisitions that can be costly for shareholders. We are unable, however, to find evidence of nonmonotonicity with this approach.

Table 3

Bidder characteristics and bank financing

This table shows probit estimates of the choice to finance the tender offer with bank debt and tobit estimates of the proportion of bank financing for the sample of 115 cash tender offers from 1990 to 1996. In Column (1), the dependent variable is PARTBANK, which equals one if the acquisition is at least partially financed with bank debt and equals zero otherwise. In Column (2), the dependent variable is ONLYBANK, which equals one when the acquisition is entirely financed by bank debt and equals zero otherwise. In Column (3), the dependent variable is LOANAMT, which equals the amount of the bank loan scaled by the acquirer's market value of equity when the acquisition is financed with at least some bank debt and equals zero when no bank debt is used. In Column (4), the dependent variable is BANKPCT, which equals the bank loan amount scaled by the sum of the bank loan amount and the acquirer's cash + marketable securities when the acquisition is financed partly by bank loan. BANKPCT equals zero when no bank debt is used, and equals one when the tender offer is entirely financed with bank debt. In Column (5), the dependent variable is NEWLOAN, which equals one when the acquisition is financed at least partially with a new or revised bank loan and equals zero when the acquisition is financed at least partially with an existing loan or when no bank debt is used. Independent variables are defined as follows: RELATED equals one when any of the target's SIC codes is common to the acquirer's first three SIC codes, ACASH is the sum of the acquirer's cash and marketable securities scaled by the book value of assets, MOWN is the fraction of common shares owned by the acquirer's management, RELSIZE is the target market value of equity divided by the acquirer market value of equity, ARETURN is the acquirer's one-year stock return immediately prior to the announcement date in excess of the CRSP value-weighted index, and TGTMB is the target's market-to-book ratio. ACASH, ACQMB, and TGTMB are adjusted for industry effects by subtracting the median ratio of these variables for firms with the same three-digit SIC code. All accounting values are measured at fiscal year-end prior to the announcement date. χ^2 statistics for significance of the estimates are in parentheses.

Variable	Dependent variable PARTBANK (1)	Dependent variable ONLYBANK (2)	Dependent variable BANKPCT (3)	Dependent variable LOANAMT (4)	Dependent variable NEWLOAN (5)
Estimation procedure	Probit	Probit	Tobit	Tobit	Probit
Intercept	-0.863 ^c (3.60)	-1.197 ^a (7.48)	0.735 ^a (79.11)	0.158 (1.96)	-1.287 ^a (9.92)
RELATED	-0.307 (0.81)	-0.025 (0.006)	-0.040 (0.44)	-0.041 (0.30)	0.265 (0.88)
ACASH	-3.730 ^a (9.16)	-3.391 ^a (7.50)	-0.526 ^b (5.58)	-0.387 (1.35)	-1.998 ^c (3.75)
MOWN	6.510 ^a (6.73)	3.119 ^a (11.89)	0.312 ^c (3.20)	0.079 (0.13)	1.700 ^c (3.72)
RELSIZE	6.477 ^a (14.26)	2.631 ^a (11.46)	0.111 (0.62)	1.521 ^a (75.38)	3.725 ^a (16.21)
ARETURN	0.163 (0.17)	-1.000 ^b (5.73)	-0.028 (0.14)	-0.121 (1.72)	0.035 (0.01)

TGTMB	-0.169 (1.26)	0.077 (0.46)	-0.066 (2.78)	-0.059 ^a (6.07)	0.013 (0.01)
STDDEV	21.95 (1.04)	-7.642 (0.13)	-3.880 (1.11)	6.751 (1.56)	11.158 (0.34)
Log likelihood	47.24	54.84	5.27	27.41	62.40
No. of observations	115	115	105	101	115

^a Indicate that the estimates are significantly different from zero at the 1% level.

^b Indicate that the estimates are significantly different from zero at the 5% level.

^c Indicate that the estimates are significantly different from zero at the 10% level.

addition, new loans are more likely to be observed when managerial ownership is high.

In unreported tests, we examine whether the probability that an acquisition will be financed by a bank depends upon the amount of existing bank debt. These tests are estimated over a smaller sample of 82 firms for which we have data on the amount of bank loans prior to the acquisition. In all model specifications, we find that the coefficient on the ratio of existing bank debt to acquirer market value is close to zero and statistically insignificant. Also, inclusion of this variable does not materially alter the coefficients on other variables.

Overall, these models demonstrate that variables intended to proxy for the availability of internal funds tend to be important in explaining the extent of bank involvement in tender offers. However, bank financing is not more prevalent for diversifying acquisitions. In addition, the evidence suggests a positive relation between bank involvement and management ownership. A similar positive association between bank loans and managerial ownership is also documented by Mihov (2000) who explores the determinants of new public and private debt financing for a broad sample of firms.

4. Wealth effects of bank loan involvement

4.1. Univariate analysis

We follow the Dodd and Warner (1983) event-study methodology to compute standardized abnormal returns and *z*-statistics for testing the significance of the cumulative abnormal returns (CARs). Market model parameters are estimated using daily returns over the interval –210 trading days to –61 trading days relative to the initial announcement.

Table 4 reports CARs surrounding the initial acquisition announcement over different windows relative to the announcement date, and presents *z*-statistics to test for statistical significance of CARs. The average cumulative abnormal return for the two-day window around the initial announcement, CAR[-1,0], for the full sample of acquirers is +0.55% and statistically insignificant. This result of small and statistically insignificant acquirer announcement returns in cash tender offers is consistent with evidence reported by earlier studies (Travlos, 1987; Sung, 1993). However, the average CAR for the three-day window, CAR[-1,1], is 1.45% and significant at the 1% level.

The wealth effects of bank loan involvement differ substantially when banks finance the entire tender offer. Column (4) of Table 4 reports univariate statistics of CARs for acquisitions that are entirely bank-financed and compares these to CARs in column (2) for acquisitions financed by internal sources. The two-day CAR averages 2.08% and is statistically significant at the 1% level when the offer is entirely bank-financed. In comparison, CARs for offers without any bank involvement average –0.32% and lack statistical significance. The difference in mean CARs between the two subsamples is statistically significant at the 1% level.

Table 4
 Acquirer cumulative abnormal returns
 This table shows mean and median cumulative abnormal acquirer returns (CARs) for the sample of 115 cash tender offers from 1990 to 1996, and for subsamples where the acquirer uses no bank debt, or only bank debt, or only bank debt to finance the acquisition. The sample of cash tender offers is obtained from the Securities Data Corporation (SDC). The source of financing in these takeovers is obtained from the SDC, 14D-1 filings, and the DealScan database of the Loan Pricing Corporation. *z*-statistics for significance of the CARs are in parentheses.

		Takeovers		Takeovers		Takeovers	
		All	Without Bank Debt	Financed Partially With Bank Debt	Financed Entirely With Bank Debt	(1)	(2)
CAR from day -1 to day 0 (CAR1.0)	Mean	0.55% (0.42)	-0.32% (1.41)	-0.21% (1.16)	2.08% (3.20) ^a		
	Median	-0.04%	-0.06%	-0.34%	0.42%		
CAR from day -1 to day +1 (CAR1.1)	Mean	1.45% (2.98)	0.54% (0.70)	-0.27% (1.01)	4.00% (5.43) ^a		
	Median	0.61%	0.56%	-0.06%	2.43%		
CAR from day -2 to day +2 (CAR2.2)	Mean	1.52% (2.32)	0.98% (0.87)	-0.27% (0.95)	3.81% (4.09) ^a		
	Median	0.38%	0.24%	-0.50%	1.83%		
CAR from day -3 to day +1 (CAR3.1)	Mean	1.38% (1.89)	0.64% (0.58)	-0.51% (1.46)	3.96% (4.15) ^a		
	Median	0.37%	-0.20%	-0.11%	2.70%		
CAR from day -3 to day +3 (CAR3.3)	Mean	1.13% (1.10)	0.47% (0.18)	-1.23% (1.95)	4.12% (3.67) ^b		
	Median	0.41%	-0.17%	-1.00%	3.63%		
CAR from day -5 to day +5 (CAR5.5)	Mean	1.61% (1.98)	1.65% (1.53)	-0.58% (1.04)	3.83% (2.99) ^b		
	Median	0.67%	1.49%	-0.76%	3.98%		

^a Indicate estimates that are significantly different from the corresponding estimates in column (2) at the 1% level.

^b Indicate estimates that are significantly different from the corresponding estimates in column (2) at the 5% level.

Offers funded entirely by banks appear to convey a much stronger signal to the market on average than offers that are partially bank-financed. Column (3) of Table 4 reports CARs for the subsample of partially bank-financed tender offers. The two-day CAR for this subgroup averages -0.27% and lacks statistical significance.

A potential concern with a two-day window is that relevant information regarding the tender offer, the terms, and the target's reaction may not be revealed on the initial announcement date. In particular, the 14D statement, that contains the complete details of the financing arrangement, is sometimes filed a few days after the initial announcement date. For example, in our sample of bank-financed acquisitions, the mean (median) number of days between the initial announcement and the 14D filing is 6.85 (four) days. In many cases, however, investors learn of bank involvement prior to the 14D filings from newspaper reports. Thus, the mean (median) number of days between the initial announcement date and the first revelation of financing details is 3.33 (zero) days. Although financing details are usually released in close proximity to the initial announcement, in a few cases, the time lag is ten or more days. To address the potential impact of nonsynchronous release of financing details, we examine announcement CARs over longer windows. Inspection of CARs computed over longer event windows, however, reveals similar patterns. Over a three-day window, takeovers financed entirely with bank debt experience an average CAR of 4% , which is significant at the 1% level, while takeovers financed only partly or without bank debt experience statistically insignificant CARs. The difference between three-day CARs for entirely bank-financed and internally financed acquisitions is significant at the 1% level. A similar pattern obtains for four-, five-, seven-, and ten-day windows surrounding the initial announcement. Thus, inspection of CARs over alternative windows indicates that investors greet acquisition announcements optimistically when the takeover is financed entirely by bank loans. The financing of the entire tender offer package appears to convey a much more credible signal to the market than offers that are partially financed by banks. There appears to be little difference in CARs for offers funded partially with bank debt and those where banks are not involved in the financing. In untabulated tests, we find similar results if we drop firms where details of the bank financing become public information more than ten days after the initial announcement.

4.2. *Multivariate analysis*

Since bank involvement is correlated with several acquirer- and transaction-specific characteristics that could be related to announcement returns, we conduct a multivariate analysis of CARs. The primary variable of interest is the extent of bank financing of the tender offer. The regressions control for several other variables including the relative size of the target and the acquirer, the bid premium, the acquirer's market-to-book ratio, the target's market-to-book ratio, the equity ownership by the acquirer's management, financial slack, and leverage.

As shown in Table 3, our sample firms have self-selected among alternative sources of tender offer financing. Therefore, the observed CARs are conditioned upon the choice of financing arrangement by the acquirers. If the factors that determine the choice of financing arrangement are correlated with the factors that determine the acquirer CARs, ordinary least squares estimates will yield biased inferences.

To account for this self-selection, we adopt the self-selectivity model described in Greene (1993). This procedure involves a first-stage estimation of the determinants of bank involvement in tender offers using a probit model. In the second stage, the inverse Mills ratio from the probit model is included as a control variable in the cross sectional regression of announcement returns. Let the bank involvement probit model be represented as

$$\text{ONLYBANK}_i = \gamma w_i + u_i. \quad (1)$$

Let the multivariate CAR regression be represented as:

$$\text{CAR}(1, -1)_i = \beta_i x_i + \delta \text{ONLYBANK}_i + e_i. \quad (2)$$

If e_i and u_i are correlated, ordinary least squares estimates of the β and δ coefficients will be biased. As shown in Greene (1993), including the inverse mills ratio, $\hat{\lambda}_i$, from the bank involvement probit model in the CAR regression controls for self selection by alleviating the omitted variable problem, where

$$\hat{\lambda}_i = \frac{\phi(\gamma' w_i)}{\Phi(\gamma' w_i)}. \quad (3)$$

When the bank involvement variable in the CAR regressions is measured by ONLYBANK, the self-selectivity control variable is the inverse Mills's ratio obtained from the probit model reported in column (1) of Table 3. When the CAR regressions evaluate the effect of partial bank financing (PARTBANK), the fraction of the transaction financed by banks (BANKPCT), or the amount of the bank loan (LOANAMT), the self-selectivity control variable is the inverse Mills ratio obtained from the corresponding model in Table 3.

Column (1) of Table 5 estimates the three-day CAR⁴ as a function of control variables and the indicator variable ONLYBANK. Consistent with the univariate results, the coefficient on this variable is positive and significant at the 1% level, implying that investors greet offers that are funded entirely by bank debt more positively. The point estimate suggests that CARs are 4.5% greater for acquisitions entirely financed by banks than other acquisitions.

To assess the valuation effect of acquisitions that are partially funded by banks, we include in column (2) the indicator variable, PARTBANK, which equals one if the acquisition is at least partly financed by banks and zero otherwise. The coefficient on this variable is small and lacks statistical significance. In contrast to acquisitions funded entirely by banks, partially bank-financed acquisitions are not associated with higher announcement returns. A possible reason for the difference in investor

⁴ Use of CARs over a two-day $(-1, 0)$ window or a five-day $(-2, +2)$ window as the dependent variable in these regressions yields results similar to those reported.

Table 5

Regressions of three-day acquirer cumulative abnormal returns

This table shows regressions of acquirer three-day CAR on bank involvement and other variables for a sample of 115 cash tender offers from 1990 to 1996. Bank financing variables are defined as follows: ONLYBANK equals one when the acquisition is entirely financed with bank debt and equals zero otherwise. PARTBANK equals one when the acquisition is at least partially bank-financed and equals zero otherwise. NEWLOAN equals one when bank debt, if used, is under a new or revised agreement and equals zero if existing bank loan agreements or no bank debt is used. OLDLOAN equals one if bank financing under an existing loan agreement is used and equals zero otherwise. BANKPCT equals the bank loan amount scaled by the sum of the bank loan amount and the acquirer's cash + marketable securities when the acquisition is financed partly by bank loan and equals one when the acquisition is entirely bank-financed. LOANAMT equals the bank loan amount scaled by market value of acquirer's equity when the acquisition is financed at least partially with bank debt. Both are set to zero when no bank debt is used. RELATED equals one if any of the target SIC codes is present in any of the acquirer's first three SIC codes and is zero otherwise. PREMIUM is defined as the initial offer premium scaled by target stock price one month before initial announcement. Other variables are as defined in the table and in the text. All accounting values are measured at fiscal year-end before the initial announcement. *t*-statistics are in parentheses.

	(1)	(2)	(3)	(4)	(5)
INTERCEPT	0.068 (0.69)	0.035 (0.35)	0.032 (0.31)	0.083 (0.78)	0.067 (0.68)
ONLYBANK	0.045 ^a 2.72				
PARTBANK		0.003 (0.21)			
NEWLOAN	0.012 (0.69)	0.027 (1.49)	0.009 (0.51)		0.008 (0.42)
ONLYBANK*NEWLOAN					0.050 ^b (2.54)
ONLYBANK*OLDLOAN					0.036 (1.52)
BANKPCT			0.034 ^c (1.67)		
LOANAMT				0.052 ^b (2.33)	
Relatedness Measure (RELATED)	0.015 (1.09)	0.036 ^b (2.10)	0.048 ^a (2.70)	0.039 ^b (2.22)	0.014 (1.03)
Tender Offer Premium (PREMIUM)	0.017 (0.86)	0.006 (0.31)	-0.007 (-0.33)	-0.003 (-0.15)	0.018 (0.92)

Market Value of Target Equity/Market Value of Acquirer Equity (RELSIZE)	-0.105 (-1.10)	-0.548 ^b (-2.36)	-0.642 ^a (-2.67)	-0.492 ^b (-2.16)	-0.106 (-1.11)
Acquirer Total Debt/Book Value of Total Assets (ACQLEV)	0.001 (0.02)	-0.002 (-0.05)	0.004 (0.10)	0.023 (0.51)	-0.003 (-0.06)
Cash + Marketable Securities/Book Value of Assets (ACASH)	0.033 (0.33)	0.190 (1.50)	0.279 ^b (2.05)	0.179 (1.39)	0.032 (0.31)
Acquirer Market to Book Ratio (ACQMB)	-0.001 (-0.07)	0.0004 (0.05)	0.001 (0.06)	0.003 (0.29)	-0.001 (-0.12)
Target Market to Book Ratio (TGTMB)	-0.005 (-0.96)	0.010 (1.38)	0.012 (1.61)	0.009 (1.17)	-0.005 (-0.98)
Acquirer Managerial Ownership (MOWN)	-0.077 (-0.74)	-0.507 (-2.15)	-0.628 ^b (-2.55)	-0.410 ^c (-1.78)	-0.078 (-0.75)
Acquirer 1-Year Pre-bid Stock Return	0.009 (0.30)	-0.023 (-1.42)	-0.020 (-1.20)	-0.004 (-0.23)	0.008 (0.28)
Log of Market Value of Acquirer's Equity	-0.008 (-1.37)	-0.009 (-1.54)	-0.009 (-1.39)	-0.008 (-1.31)	-0.00 (-1.36)
Hostile Takeover Indicator	-0.017 (-0.70)	-0.003 (-0.14)	-0.009 (-0.37)	-0.008 (-0.35)	-0.018 (-0.73)
Multiple Bidder Indicator	0.011 (0.26)	0.033 (0.81)	0.021 (0.52)	-0.009 (-0.19)	0.012 (0.30)
White Knight Indicator	-0.041 (-0.71)	-0.004 (-0.07)	-0.014 (-0.25)	-0.015 (-0.27)	-0.046 (-0.79)
First Bidder Indicator	0.040 (0.80)	0.062 (1.22)	0.050 (1.01)	0.011 (0.20)	0.042 (0.82)
Self Selectivity Correction	0.031 (0.63)	0.090 ^b (2.27)	0.107 ^b (2.61)	0.071 ^c (1.78)	0.031 (0.63)
Number Of Observations	115	115	105	101	115
Adjusted R^2	5.51%	3.39%	7.18%	10.26%	4.78%

^a Indicate that the estimates are significantly different from zero at the 1%.

^b Indicate that the estimates are significantly different from zero at the 5% levels.

^c Indicate that the estimates are significantly different from zero at the 10% levels.

reactions is that acquisitions funded entirely by banks are seen as a stronger signal than partial bank financing. If the proportion of bank financing is small in partially funded acquisitions, the role of banks might be viewed as being limited in these transactions.

Support for this view is obtained in column (3) where we use **BANKPCT**, the fraction of the tender offer financed by bank debt, as the dependent variable in a Tobit model. The coefficient on **BANKPCT** is positive and significant at the 10% level. The point estimate on **BANKPCT** suggests an economically meaningful relation between the proportion of bank financing and announcement returns. Evaluated at the mean, a 10% increase in the fraction of the offer funded by banks is associated with a 0.34% increase in announcement returns.

The Tobit model in column (4) estimates the announcement return as a function of **LOANAMT**, the ratio of the amount of the bank loan to the market value of the acquirer's equity. This variable represents another continuous measure of the extent of bank financing. The coefficient on **LOANAMT** is positive and significant at the 1% level, suggesting that the strength of the signal increases with the degree of bank commitment to the tender offer. This result is consistent with Lummer and McConnell (1989) who find that announcement returns for bank financing agreements are positively related to the size of the loan agreement.

The positive association between bank financing and announcement returns raises an issue regarding the direction of causality. Does bank commitment to the tender offer package constitute a credible signal that leads investors to value the acquisition favorably? Under this scenario, the bank's decision to grant financing conveys a positive signal to investors. Or is it the case that the bank's superior information allows it to identify in advance which acquisitions are value-enhancing events and to selectively finance such acquisitions? Under this scenario, the bank's informational advantage simply allows them to "cherry pick" the acquisitions that will have a positive CAR. To understand this issue, we separately examine announcement returns when firms obtain a commitment for a new bank loan and those where an existing bank loan is used to fund the tender offer. If banks choose to lend selectively for acquisitions where their information suggests that the market response will be positive regardless of bank involvement, we expect that this effect will predominate for new bank loans. Cherry picking behavior should be less important for existing bank commitments negotiated prior to the knowledge of an acquisition.

Model (5) includes an interaction between **ONLYBANK** and **NEWLOAN**, an indicator that equals one if the bank loan is new or revised (and zero if it is an existing loan). Also included is an additional interaction between **ONLYBANK** and **OLDLOAN**, an indicator that equals one if the acquisition is financed by an existing loan and zero otherwise. Offers funded entirely by a new or revised bank loan have CARs that are 5% higher than other offers, while those funded by existing bank loans have CARs that are 3.6% higher. An *F*-test for the equality of coefficients on the two interaction terms has a *p*-value of 0.61. Therefore, we cannot reject the hypothesis that announcement returns are similar for existing and new bank loans. Thus, our results do not seem to be consistent with the view that banks simply fund

acquisitions that would be greeted positively by investors irrespective of bank involvement.

Inspection of the control variables in models (2)–(4) shows that acquirer CARs are higher for related acquisitions, consistent with Morck et al. (1990) and Chevalier (2000), and that acquisitions for large targets and by acquirers with high management ownership are associated with lower CARs. However, in models that include ONLYBANK, the coefficients on relatedness, relative size, and management ownership, become statistically insignificant. This is not surprising, since Table 3 shows that the method of financing is related to acquisition characteristics and management ownership. It is also worth noting that the coefficient on the correction for self-selectivity is positive and statistically significant in three of the five models. This suggests that failure to control for the determinants of bank financing would result in biased coefficient estimates. Among the other control variables included in the analysis, those measuring the nature of the takeover such as hostility, the frequency of multiple bids, and indicators for whether the acquirer is the first bidder or a white knight, are all statistically insignificant.

In summary, the regressions show that acquisitions funded by entirely by bank debt are associated with significantly higher announcement returns and that the market's reaction to acquisitions is positively related to the fraction of the offer financed by bank debt. The positive CARs for acquisitions funded by existing bank loans are informative because they indicate that our results are not simply an artifact of the documented positive announcement effects of bank loan announcements. For existing bank loans, the positive effect of the loan announcement would already be incorporated into the firm's stock price. Hence, the positive returns around the acquisition announcement for these firms would be driven primarily by investors' reaction to the acquisition. Nonetheless, it is still possible that existing bank loan contracts include restrictive covenants that mandate the bank's prior approval of an acquisition. Therefore, a firm's decision to fund an acquisition with an existing loan might convey information regarding the bank's approval of the acquisition. To more closely understand bank involvement in such circumstances, we examine the contractual provisions contained in the bank loan agreements.

4.3. Analysis of bank loan covenants

We obtain details of the bank loans in our sample from the 14D filings. When existing or amended bank loans are used, the 14D filing often contains the complete bank loan agreement. When firms obtain new bank loans, the initial 14D filing contains the bank loan commitment letter that describes the key terms and conditions of the loan. Because the credit agreement is more complete, we use it when the initial filing or a subsequent amendment contains the agreement. We collect complete data from loan commitment letters for 25 new loans and credit agreements for existing bank loans in 15 cases. We report the covenants separately for new and existing loans because the final credit agreement is usually more extensive than the initial commitment letter.

Table 6

Covenants in bank loan agreements

This table shows summary of covenants contained in a sample of 40 bank loan credit agreements and bank loan commitments used to finance cash tender offers from 1990 to 1996. The sample of 115 cash tender offers is obtained from the Securities Data Corporation (SDC). Text of bank loan credit agreements and commitment letters are obtained from 14D-1 filings

	All bank loans	Existing bank loans	New bank loans
<i>Restrictive Covenants:</i>			
Structure of tender offer or merger to be satisfactory to bank	12	0	12
No adverse change in business of acquirer	21	2	19
No adverse change in business of target	13	0	13
No adverse change in debt market conditions	17	2	15
Mandatory pre-payments of debt required	16	3	13
Restrictions on mergers	31	11	20
Restrictions on capital expenditures	11	1	10
Restrictions on dividends and share repurchases	22	6	16
Restrictions on asset sales	29	11	18
Restrictions on change in lines of business	16	5	11
Interest rate risk management required	2	0	2
Restrictions on pre-payment of other debt	10	0	10
Restrictions on incurring additional debt	21	8	13
Restrictions on modifying terms of existing instruments	3	2	1
Limitations on liens	28	10	18
Limitations on operating leases	4	1	3
Conform to schedule for providing information on covenant compliance (information covenants)	20	11	9
Target to rescind poison pill	2	0	2
<i>Financial Covenants:</i>			
Covenants on leverage ratio	31	10	21
Covenants on interest coverage	21	8	13
Covenants on fixed charge coverage	11	3	8
Covenants on net worth	23	8	15
Covenants on EBITDA	7	3	4
<i>Number of credit agreements</i>	40	15	25

Table 6 shows that bank loans contain extensive covenants and restrictions on investment and financing activities. There are several noteworthy patterns. First, 12 of 25 (48%) commitment letters explicitly require that the structure and terms of the proposed acquisition be satisfactory to the bank. Thus, banks appear to have the option to withdraw support if the terms of the offer are viewed to be detrimental to their interests. Citibank's commitment letter to Williams Co. provides an example of a typical merger covenant:

The lenders shall be satisfied with the final terms and conditions of the Transaction, including, without limitation, the Tender Offer, and with the

proposed terms and conditions of the Merger; the Lenders shall be satisfied with all legal and tax aspects of the Transaction (including, without limitation, the Tender Offer and the Merger); and all documentation relating to the Transaction, including, without limitation, the Tender Offer, the Merger, the Offer to Purchase, the Merger Agreement, shall in form and substance be satisfactory to the Lenders and the price per share and the number per shares to be acquired shall be as set forth in the Merger Agreement.

Such merger covenants do not appear to be simply boilerplate provisions, but potentially constrain some acquirers. In Northrop's acquisition of Grumman, the commitment letter by Chase Manhattan Bank explicitly addresses this issue:

One of the conditions of funding the Credit Facilities set forth in the Commitment Letter is that a definitive merger agreement, in form and substance satisfactory to the Co-Agents, shall have been entered into by the Borrower and the Target (the "Merger Condition"). We have been discussing with you the basis on which we would agree to remove the Merger Condition.

By this letter we confirm that we would be prepared to commit to finance the Tender Offer without satisfaction of the Merger Condition, subject to a mutually satisfactory agreement with you (i) to pay fees to the Co-Agents in addition to those set forth in the Fee Letter in amounts and at such times as we deem appropriate under the circumstances, (ii) to increase the margins on the loans under the Credit Facilities prior to the merger by an amount which we deem appropriate under the circumstances, and (iii) to limit the length of interest periods under the Credit Facilities prior to completion of the merger.

In addition to covenants requiring bank approval of the tender offer terms, banks also frequently include covenants that allow financing to be withdrawn in the event that unfavorable information on the prospects of the acquirer, the target, or debt market conditions is revealed.

Of particular interest are restrictions on future mergers, which are observed frequently. 20 of 25 commitment letters (80%) and 11 of 15 existing loans (73%) restrict the acquirer's ability to engage in future acquisitions. Such restrictions increase the bank's ability to monitor the firm's investment policy because they force the firm to seek explicit approval for an acquisition. For example, Lear Corp., which financed its acquisition with an existing loan, reports the following contingency in its tender offer:

The Credit Agreement currently prohibits the consummation of the Offer and the Merger. Parent has negotiated with Chemical Bank a form of amendment and consent (the "Credit Agreement Amendment") to the Credit Agreement that would permit the Offer and Merger. The Credit Agreement Amendment will require the written consent of Lenders holding more than 50% of the aggregate outstanding indebtedness under the Credit Agreement, which consent is currently being sought. The consummation of the Offer is conditioned upon, among other things, the execution of the Credit Agreement Amendment by the requisite Banks.

Although most merger covenants either prohibit acquisitions or require explicit bank approval, ten bank loans in our sample do not impose an outright ban on future acquisitions. In these cases, covenants allow the firm to pursue “permitted acquisitions” that do not require prior approval. Although the definition of permitted acquisitions varies in complexity, two aspects are commonly observed. First, the maximum size of a permitted acquisition is limited either by a predefined amount or by a metric tied to the acquirer’s performance. Second, the merger covenant typically defines permitted acquisitions to be those in the same line of business as the acquirer. As an illustration, Clear Channel’s credit agreement contains the following definition of permitted acquisitions:

Investments in communication or media related businesses not to exceed, at any time outstanding, an aggregate amount ...equal to the sum of (i) 150% of Operating Cash Flow for the immediately preceding four fiscal quarters, plus (ii) 100% of the first \$50,000,000 of Net Cash Proceeds received by the Borrower and its Subsidiaries from the issuance of equity after the Agreement Date, plus (iii) 50% of the Net Cash Proceeds in excess of \$50,000,000 received by the Borrower and its Subsidiaries from the issuance of equity after the Agreement Date, plus (iv) 50% of Net Cash Proceeds received by the Borrower and its Subsidiaries from the issuance of any subordinated convertible debentures after the Agreement Date.

Overall, the preponderance of merger covenants suggests that the existence of a previously negotiated bank loan does not provide acquirers’ management with *carte blanche* regarding their acquisition strategy. Rather, merger covenants appear to be designed to allow banks the opportunity to evaluate proposed acquisitions and banks’ commitment to the offer.

It is also interesting to note that there is no evidence to suggest that banks prefer to encourage diversifying investment policies. In fact, 26 of the 40 loans in the sample prohibit the firm from changing its current line of business or making unrelated acquisitions. For example, Revco’s credit agreement with Banque Paribas and Bank of America states:

Revco will not, nor will it permit any of its Subsidiaries to, engage in any business activity other than the ownership and operation of retail drugstores and other such businesses as may be incidental or related thereto or as engaged in by Revco and its Subsidiaries on the Amendment Effective Date.

In addition to mergers, covenants also limit other aspects of investment policy. As expected, frequent among these are restrictions on asset sales and capital expenditures. Loan agreements also employ extensive financial covenants that require minimum leverage, interest coverage, and net worth ratios. In seven cases, covenants on minimum levels of pretax operating income are also observed. A firm’s willingness to observe such targets for financial performance might be construed by investors as a positive signal regarding the quality of the proposed acquisition. Similar covenants on asset dispositions, capital expenditures, and financial metrics in

bank loans are also documented by Gilson and Warner (2000) who study firms that exchange bank loans for junk bonds.

4.4. *Subsample analysis of bank loan involvement*

Our final set of tests examines the acquisition CARs for subsamples that are expected to vary in the degree of monitoring intensity, information asymmetry, and bank information monopoly. If banks are involved in certification and monitoring of tender offers, the positive effects of bank involvement should be more pronounced in subsamples where monitoring and certification is expected to be more valuable. However, if banks exploit their informational monopoly, we expect bank involvement to be less beneficial to shareholders when its informational advantage is more pronounced.

We expect that the benefits of monitoring are larger for acquirers that have been performing poorly. Consistent with this view, Morck et al. (1990) and Lang et al. (1991) find that poorly performing acquirers experience significantly negative announcement CARs. Thus, if banks monitor, the positive relation between bank financing and CARs should be stronger for poorly performing acquirers. To test this, we define HIGHRET as equal to one if the acquirer's stock return over the year prior to the acquisition announcement is above the sample median and as zero otherwise. We define the variable LOWRET as equal to one if the acquirer's one-year stock return is below the sample median and as equal to zero otherwise. In model (1) of Table 7, we include interaction terms between these variables and ONLYBANK.⁵ The positive association between CARs and bank involvement is driven entirely by the subsample of acquirers that are poorly performing. For acquirers with above median stock returns, the association between bank financing and CARs is not significant.

Since bank financing is positively associated with announcement returns primarily for poorly performing acquirers, we revisit the relation between new and existing bank loans in model (2). In this model, we include four interaction terms between bank financing, prior performance, and new or existing loans.⁶ Model (2) shows that both new and existing loans are positively associated with acquirer CARs for poorly performing acquirers, but that neither is associated with acquirer returns when acquirers perform well. An *F*-test reveals that coefficients on the interactions between new and existing loans for poorly performing acquirers that finance entirely with bank debt is not statistically significant. This supports the earlier finding that the market reaction to bank-financed acquisitions does not vary according to whether the bank loan represents a new or revised loan or is an existing agreement.

⁵For ease of interpretation, we report regressions using interactions between the variables for prior performance and ONLYBANK. In these and subsequent results, our results are qualitatively similar if we interact the prior performance variables with BANKPCT or LOANAMT instead.

⁶The proportion of loans that are new or revised, or existing loans does not vary substantially across the HIGHRET and LOWRET subsamples. New or revised loans comprise 54% of bank-financed acquisitions in the LOWRET sample, and 58% in the HIGHRET sample.

Table 7

Regressions of three-day acquirer cumulative abnormal returns

This table shows regressions of acquirer three-day CAR on bank financing for a sample of 115 cash tender offers from 1990 to 1996. Variables are defined as follows: ONLYBANK equals one when the acquisition is entirely financed with bank debt and equals zero otherwise. HIGHRET equals one when the acquirer's prior one-year stock return is above the sample median and equals zero otherwise. LOWRET equals one when the acquirer's prior one-year stock return is below the sample median and equals zero otherwise. NEWLOAN equals one when bank debt, if used, is under a new or revised agreement and equals zero if an existing bank loan agreement or no bank debt is used. OLDLOAN equals one if bank financing under an existing loan agreement is used and equals zero otherwise. HIGHSIZE equals one if the acquirer's market value of equity is above the sample median and equals zero otherwise. LOWSIZE equals one if the acquirer's market value of equity is below the sample median and equals zero otherwise. HIGHSTD equals one if the acquirer's stock return volatility over the prior year is above the sample median and equals zero otherwise. LOWSTD equals one if the acquirer's stock return volatility over the prior year is below the sample median and equals zero otherwise. HIGHMB equals one if the acquirer's market-value-to-book-value of assets is above the sample median and equals zero otherwise. LOWMB equals one if the acquirer's market-value-to-book-value of assets is below the sample median and equals zero otherwise. LOWMBA equals one if the acquirer's market-value-to-book-value of assets is below the sample median and equals zero otherwise. Other variables are defined in the table and text. All accounting values are measured at fiscal year-end before the initial announcement. *t*-statistics are in parentheses.

	(1)	(2)	(3)	(4)	(5)
INTERCEPT	-0.018 (-1.20)	-0.017 (-1.16)	-0.018 (-1.17)	-0.015 (-1.04)	-0.021 (-1.38)
ONLYBANK*HIGHRET	0.020 (1.02)				
ONLYBANK*LOWRET	0.053 ^a (3.02)				
ONLYBANK*HIGHRET*NEWLOAN		0.030 (1.30)			
ONLYBANK*HIGHRET*OLDLOAN		-0.008 (-0.22)			
ONLYBANK*LOWRET*NEWLOAN		0.052 ^b (2.58)			
ONLYBANK*LOWRET*OLDLOAN		0.058 ^b (2.13)			
ONLYBANK * HIGHSIZE			0.017 (0.88)		
ONLYBANK * LOWSIZE			0.059 ^a (3.31)		
ONLYBANK*HIGHSTD				0.081 ^a (4.77)	
ONLYBANK*LOWSTD				-0.005 (-0.29)	

ONLYBANK*HIGHMB					0.032 (1.67)
ONLYBANK * LOWMB					0.047 ^a (2.54)
Relatedness Measure (RELATED)	0.021 (1.59)	0.020 (1.52)	0.021 (1.65) ^c	0.017 (1.44)	0.021 (1.57)
Tender Offer Premium (PREMIUM)	0.018 (0.95)	0.017 (0.91)	0.018 (0.97)	0.020 (1.13)	0.019 (1.01)
Market Value of Target Equity/Market Value of Acquirer Equity (RELSIZE)	-0.012 (-0.20)	-0.016 (-0.26)	-0.053 (-0.61)	-0.098 (-1.19)	-0.051 (-0.63)
Acquirer Total Debt/Book Value of Total Assets (ACQLEV)	-0.003 (-0.06)	0.009 (0.20)	0.003 (0.06)	-0.019 (-0.46)	0.009 (0.22)
Cash + Marketable Securities/Book Value of Assets (ACASH)	0.004 (0.06)	-0.002 (-0.03)	0.028 (0.29)	0.039 (0.43)	0.029 (0.31)
Acquirer Market to Book Ratio (ACQMB)	0.0003 (0.04)	-0.001 (-0.05)	-0.0007 (-0.09)	-0.003 (-0.39)	
Target Market to Book Ratio (TGTMB)	-0.004 (-0.83)	-0.005 (-0.96)	-0.004 (-0.79)	-0.008 (-1.70)	-0.005 (-0.95)
Acquirer Managerial Ownership (MOWN)	-0.012 (-0.17)	0.004 (0.06)	-0.041 (-0.42)	-0.097 (-1.05)	-0.013 (-0.14)
Acquirer 1-Year Pre-bid Stock Return			0.003 (0.09)	0.012 (0.45)	0.001 (0.02)
Self Selectivity Correction	0.001 (0.02)	0.003 (0.09)	0.019 (0.40)	0.041 (0.91)	0.021 (0.45)
Number of Observations	115	115	115	115	115
Adjusted R ²	7.10%	6.05%	7.81%	18.73%	5.75%
F-test for Equality of Interaction Coefficients (p-value)	1.94 (0.17)	0.04* (0.84)	3.72 ^b (0.06)	17.93 ^a (0.00)	0.42 (0.52)

^a Indicate that the estimates are significantly different from zero at the 1% level.

^b Indicate that the estimates are significantly different from zero at the 5% level.

^c Indicate that the estimates are significantly different from zero at the 10% level.

If bank financing certifies acquisition quality, the certification effect should be most important for firms where there is a substantial amount of informational asymmetry. We use firm size and stock return volatility as measures of information asymmetry. We define the indicator **HIGHSIZE** as equal to one if the market value of the acquirer's equity exceeds the sample median, and zero otherwise. **LOWSIZE** is defined as equal to one if the market value of the acquirer's equity is below the sample median and zero otherwise. We also partition the sample according to the volatility of stock return for acquirers in the year prior to the acquisition. The indicator **HIGHSTD** denotes acquirers whose stock return volatility is above the sample median, and **LOWSTD** denotes acquirers whose volatility is below the median. We measure stock return volatility over the interval of 60 trading days before to 210 trading days after the acquisition announcement.

Model (3) of Table 7 includes interactions between **ONLYBANK** and the **HIGHSIZE** and **LOWSIZE** indicators. The effect of bank financing on CARs is positive and significant for small firms. The coefficient estimates indicate that offers by small acquirers that are entirely financed by banks are associated with CARs that are 5.9% higher than other offers. In contrast, bank involvement does not appear to be associated with higher CARs for large acquirers.

Model (4) includes interactions with the acquirer's stock return variability. Entirely bank-financed offers by acquirers with high stock return volatility have CARs that are 8.1% higher than CARs for other acquirers. Bank financing has little discernable influence on acquirer CARs for firms with relatively low stock return variability. These results suggest that bank-financed acquisitions are greeted positively primarily when the informational asymmetry between firms and capital market participants is high.

We test if the effect of bank financing is related to the investment opportunities of the acquirer. In Rajan (1992), bank debt distorts the firm's investment policy because of the bank's informational monopoly. Houston and James (1996) suggest that the bank's informational monopoly will be substantial for firms with a relatively attractive investment opportunity set. Therefore, for these firms, the costs of a distorted investment policy induced by the bank's informational monopoly should be large. We define an indicator, **HIGHMB**, to denote firms whose market-to-book value of assets is above the sample median, and an indicator, **LOWMB**, to denote firms whose market-to-book value of assets is below the sample median. Model (5) shows that acquisitions financed by bank debt are associated with positive CARs for **LOWMB** acquirers. The coefficient on the interaction between bank financing and **HIGHMB**, while positive, is not significant. An F-test for equality of the interaction terms is not rejected at the 10% level. Thus, these results do not offer support for the view that bank financing is detrimental to shareholder wealth when the bank's informational advantage is large. Instead, these results can be viewed as being consistent with an important certification effect. For firms that are perceived to have attractive investment opportunities, the announcement of an acquisition might be viewed as bad news regarding the firm's investment opportunities. However, the use of bank debt appears to overcome this adverse information revelation effect for these firms.

4.5. Discussion of alternative interpretations

The evidence above shows that announcements of bank-financed acquisitions are good news for investors. This positive effect is most dominant for acquirers that are small, perform poorly prior to the acquisition, or have high stock return volatility. We have interpreted these results as being consistent with a monitoring role for banks. However, the findings are also potentially consistent with different interpretations. In this section, we discuss the evidence that supports or refutes these alternatives.

One explanation for the positive CARs is that investors are pleasantly surprised by a firm's ability to make an acquisition. Particularly for small and poorly performing firms, the ability to launch an acquisition might convey positive news about management's expectation of future profitability. Two findings, however, appear inconsistent with this explanation. First, as shown in Table 5, CARs are not significantly related to either the size of the acquirer or to the acquirer's prior stock return performance. Both acquirer size and performance matter only when interacted with the bank financing indicators, suggesting that if size and performance matter, it is due to their interaction with financing choice. Second, it appears that acquirer size proxies for the degree of information asymmetry. In untabulated tests, we find that including interactions between ONLYBANK and HIGHSIZE and LOWSIZE as well as interactions between ONLYBANK and HIGHSTD and LOWSTD yields a significant coefficient on the interaction with HIGHSTD but not on HIGHSIZE. Therefore, including stock return volatility renders firm size insignificant, suggesting that size proxies for information asymmetry.

Another explanation is that the announcement CARs reflect investors' surprise that the acquisition is not funded by equity. If bank-funded acquisitions were initially expected to be financed by equity, the announcement of bank funding could be viewed as positive news that equity is not being issued. If this is true, we should observe the CARs should be the most positive when investors viewed an equity issue as most likely. Mikkelson and Partch (1986) and Jung et al. (1996) show that firms tend to issue equity after significant run-ups in stock price. Therefore, well-performing acquirers would be more likely to issue equity, and the decision to use bank debt instead should be more positive news for these firms. However, as shown in Table 7, CARs are higher for poorly performing acquirers that use bank financing, contrary to the predictions of this argument. In unreported tests, we also examine the acquirer's stock return performance over the prior 60-, 90-, and 180-day windows and find no evidence that high pre-bid performance is associated with higher announcement CARs.

A third possibility is that highly capable managers make more profitable acquisitions, which are viewed favorably by the market. At the same time, banks might be more willing to lend to highly capable managers. Two findings suggest that this is unlikely to be the primary explanation for our results. First, firms run by high ability managers should be valued more highly by investors. This implies that bank-financed acquisitions by highly valued firms should have higher CARs. However, Table 7 shows that the CARs for bank-funded tender offers do not vary according to

the acquirer's market-to-book ratio. To the extent that a high market-to-book ratio is indicative of superior management, this result is not consistent with the view that our results are driven by unobserved managerial ability. Further, as discussed in Section 2, the amount of existing bank debt does not vary significantly across firms that have bank-financed and internally financed tender offers, suggesting that banks are equally likely to finance the operations of both groups of firms.

Our results also do not support the interpretation that bank-financed offers have positive CARs because they convey favorable information about the firm's ability to obtain a new bank loan. As discussed in Section 4 and shown in Tables 5 and 7, CARs do not depend upon whether the acquisition is financed by a new loan or by an existing loan agreement.

The results seem most consistent with the interpretation that bank debt financing imposes discipline on acquiring managers and that this leads to improved investment decisions. Supporting this view, we find that bank loan contracts include detailed covenants and restrictions on future investments, particularly acquisitions. Loan contracts often appear to be designed specifically to allow banks the opportunity to review proposed acquisitions. Also consistent with this explanation is the finding that poorly performing firms, which are expected to benefit more from close monitoring, experience significantly larger CARs for bank-financed acquisitions. Our findings are therefore consistent with a monitoring role for banks.

5. Conclusions

The source of financing of tender offers has an important influence on both the characteristics of the acquisition and the market's reaction. We find that tender offers financed entirely with bank debt are viewed positively by investors. Three-day announcement returns for cash tender offers financed entirely by banks average 4% and are statistically significant. In comparison, cash tender offers financed partially by banks or those financed entirely by financial slack are associated with small and statistically insignificant announcement returns. The banks' decision to finance the entire tender offer appears to constitute a strong signal to investors. The announcement returns for bank-financed acquisitions increase with the extent of bank financing, and are more favorable when acquirers are performing poorly, are small firms, and exhibit relatively high stock return variability.

We find evidence consistent with a screening and monitoring role for banks. Bank financing is observed more frequently when acquirers have higher managerial ownership and thereby possess stronger incentives to undertake value-enhancing acquisitions. However, the need for external financing appears to be a first-order determinant of bank financing. Acquirers predicted to have a high need for external financing (such as those with low internally generated funds and those undertaking larger acquisitions) are more likely to employ bank financing. Since bank financing is viewed positively by shareholders, our evidence points to a cost of financial slack that has received little attention. Although financial slack can be useful in circumventing informational frictions associated with external financing identified

by Myers and Majluf (1984), it also insulates firms from the screening and monitoring role of informed intermediaries such as banks.

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