

# Conflicts of interest on corporate boards: The effect of creditor-directors on acquisitions<sup>\*</sup>

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## Abstract

This paper investigates the effects on acquisitions of creditor-director presence on corporate boards. Using a hand-collected dataset for boards of large U.S. corporations, we find that companies with creditor-directors are more likely to engage in acquisitions with attributes that are unfavorable to shareholders and favorable to creditors (more diversifying and fewer cash-financed acquisitions). Consistent with these patterns, acquisition announcements are associated with lower shareholder value, higher creditor value, and lower overall firm value when a creditor is present. These results support the hypothesis that conflicts of interest between shareholders and creditors result in value-destroying acquisitions. In addition, commercial bankers with no lending relationship are not affected by conflicts of interest. Where appropriate, our estimation strategy takes into account that there may be self selection of bankers onto corporate boards.

JEL Classification: G21, G34

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## 1. Introduction

Acquisitions are among the most important corporate decisions and may result in significant wealth transfers from shareholders to creditors (Galai and Masulis, 1976). The main corporate governance mechanism to prevent such wealth transfers is the oversight function performed by the acquiring company's board of directors. Creditors are often represented on corporate boards: 11.4 percent of S&P 500 companies had a creditor on their boards between 2002 and 2007. Like any other board member, a creditor-director has a fiduciary duty to disapprove of acquisitions that do not increase shareholder value. Nonetheless, conflicts of interest between shareholders and creditors may cause creditors to approve acquisitions that add value to creditors but reduce shareholder value (Jensen and Meckling, 1976).

An alternative possibility is that creditors perform important governance functions: Due to their lending relationships, creditors may have access to information that other board members may not have. The informational advantage of creditors may facilitate monitoring and enable the board to screen out value-destroying projects (Boyd and Prescott, 1986; Diamond 1991).

In this paper we present evidence that creditor presence on a company's board of directors is associated with acquisitions that are unfavorable for shareholders but favorable for creditors. We find a negative equity market and a positive credit market reaction to acquisition announcements. The market reactions reflect that creditor presence is associated with types of acquisitions that may add value to the creditors and reduce shareholder value: more diversifying and fewer acquisitions that are paid entirely by cash. These findings are in support of the conflicts of interest hypothesis.

We start by building a hand-collected data set of director characteristics for the S&P 500 non-financial firms between 2002 and 2007. We identify creditors as those board members whose primary employer is a commercial bank with an outstanding lending relationship with the

company. We then gather data on acquisitions that were announced and completed by our sample firms between 2002 and 2007 and analyze the effect of creditor presence on acquisition activity. Specifically, we consider acquisition intensity, deal attributes, and equity and credit market reactions to acquisition announcements.

In our empirical analysis we pay special attention to the possibility of self-selection of creditors onto corporate boards. Previous studies show that companies with and without creditors on their boards have significantly different financial characteristics (Booth and Deli, 1999; Kroszner and Strahan, 2001; Byrd and Mizruchi, 2005; Rumble and Santos, 2006; Güner et al., 2008; Ferreira and Matos, 2011; Şişli-Ciamarra, 2011). Therefore, we may identify differences in firms with and without a creditor-director either because there is an effect of creditor presence on acquisition quality or because firms with characteristics that make them more likely to have creditors on their boards are also more likely to engage in more or less favorable acquisitions. To address the possibility of self-selection, we explicitly model creditor selection within an average treatment effects framework (Heckman, 1978):<sup>1</sup> We test if there is evidence for selection, and, when appropriate, correct for it by jointly estimating the selection of bankers onto boards and the effect of creditors on acquisitions.

We first study if creditor presence is associated with a higher propensity to acquire, or with types of acquisitions that have been shown to reduce shareholder value. More acquisition activity, other things equal, will lead to lower variance of a firm's cash flows and thus increase the value of its debt claims (Levy and Sarnat, 1970; Lewellen, 1971; Higgins and Schall, 1975). It is therefore in a creditor's interest to engage in more acquisitions, while shareholders have no specific interest in engaging in a large number of acquisitions. We measure acquisition intensity with three proxies: the probability of completing an acquisition, the number of completed acquisitions, and the value of completed acquisitions in a given year. We do not find any

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<sup>1</sup> Recent literature on the composition of corporate boards points out the importance of using the correct empirical methodology in the presence of self-selection (see Adams, Hermalin, and Weisbach, 2010).

evidence for creditor presence being associated with more acquisition activity.

However, we find that those acquisitions that are completed have characteristics that are more attractive to creditors and less attractive to shareholders. Specifically, acquisitions with creditor presence tend to have deal-specific attributes that are negatively related to shareholder value: diversification into different industries (Morck, Shleifer, and Vishny, 1990), and public targets (Fuller, Netter, and Stegemolle, 2002). Furthermore, creditor presence is associated with a statistically significant 11 percent reduction in the likelihood of a cash-only payment, which may be favorable to creditors since it preserves acquirer cash holdings (Campbell, Hilscher, and Szilagyi, 2008; Acharya, Davydenko, and Strebulaev, 2011). In contrast fewer cash-only payments are unfavorable to shareholders: Cash offers tend to be characterized by insignificant abnormal stock returns while acquisitions financed by stock are associated with significantly negative returns (Travlos 1987; Wansley, Lane and Yang, 1987; Franks, Harris and Mayer, 1988; Loughran and Vjih, 1997).

Equity and credit market reactions to acquisition announcements reflect the patterns in deal attributes: We find a reduction in credit spreads, i.e. a positive credit market reaction: Creditor presence is associated with a statistically significant 3.3 percent reduction in 5-year credit default swap (CDS) spreads when compared to firms with similar characteristics but with no creditor on their board. At the same time, creditor presence is associated with a statistically significant 4.3 percent reduction in equity value.

While these results suggest adverse wealth transfers from shareholders to creditors, one may take a stakeholder point of view and argue that so long as the total firm value that is shared between shareholders and creditors is larger as a result of an acquisition, creditors add value to the firm. Therefore, we also study the response of overall firm value to acquisitions and find that creditor presence is associated with a statistically and economically significant decrease in overall firm value.

We present further evidence in support of the conflicts of interest hypothesis. Following the empirical strategy in Kroszner and Strahan (2001) and Booth and Deli (1999), we compare creditors and unaffiliated bankers (commercial bankers with no outstanding lending relationship). While both creditors and unaffiliated bankers have financial expertise and can give sophisticated advice to management with regards to acquisition decisions, only creditors have conflicting interests with shareholders. We find no significant relationship between unaffiliated banker presence and stock, credit market, or firm value reactions to acquisition announcements.

Another group of financial experts represented on boards are investment bankers. Similar to unaffiliated bankers, investment bankers are not associated with any significant credit market response as measured by CDS spreads. This pattern is consistent with the conflicts of interest hypothesis since investment bankers (unlike creditors) have no particular interest in increasing the value of a company's bonds. On the other hand, we find that the presence of an investment-banker is associated with a 5.65 percent reduction in shareholder value around the announcement dates – a result that is consistent with previous studies that look at the relationship between investment banker presence on boards and acquisition returns (Güner, Malmendier, and Tate, 2008).

This paper adds to the literature that studies the impact of creditors on corporate boards. The relationship between creditor-directors and firm financing is the subject of a number of studies (Booth and Deli, 1999; Kroszner and Strahan, 2001; Byrd and Mizruchi, 2005; Güner et al., 2008; Ferreira and Matos, 2011; Şişli-Ciarrarra, 2011).<sup>2</sup> However, to the best of our knowledge, our study is the first to look at the relationship between creditors and acquisitions – an additional avenue through which shareholder-creditor conflicts may distort corporate actions. Also, unlike previous work, we specifically analyze both equity and credit market responses and

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<sup>2</sup> Creditor representation on boards have been shown to be detrimental for shareholder value in the context of foreign bank-based financial markets: Morck and Nakamura (1999) show that banker directors emphasize policies that favor creditors over shareholders in Japan, and Dittman, Maug, and Schneider (2010) argue that bankers cause a decline in the valuations of non-financial firms in Germany.

thereby are able to get a better understanding of effects of conflicts of interest between shareholders and creditors on acquisition outcomes.

Güner, Malmendier, and Tate (2008) perform a comprehensive study of the effects of financial experts on corporate boards. As one of their outcome measures, they consider shareholder responses to acquisition announcements and find no effect of commercial banker presence. They do not, however, consider the effect of creditor presence on acquisitions nor do they analyze the credit market reaction in response to acquisition announcements.<sup>3</sup>

Our main conclusion that creditor-directors lead to value-destroying investment choices (acquisitions) is consistent with Mitchell and Walker (2008), who show that firms appointing creditors on their boards exhibit value declines following their appointments. Our results add to Kracaw and Zenner (1999), who show that the stock price reactions to bank loan announcements are negative when the bank and the borrower have representation on each others' boards.

The rest of the paper is organized as follows. Section 2 describes our data and section 3 motivates and discusses our empirical methodology. Section 4 presents our results of the effect of creditor presence on acquisitions. Section 5 presents further evidence in support of the conflicts of interest hypothesis. Section 6 concludes.

## **2. Data description and summary statistics**

### **2.1. Sample and board of directors data**

Our sample consists of all companies included in the S&P 500 Index at the beginning of 2002, excluding financial companies (SIC codes 6000-6999). We gather data on these companies for six years between 2002 and 2007. Conditional on available information our sample includes

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<sup>3</sup> Güner et al. (2008) consider differences between creditors and unaffiliated bankers for other outcome measures, e.g. loan sizes, though not when studying acquisitions.

398 companies and 2230 firm-year observations.<sup>4</sup> For the companies in our sample we hand-collect information on individual director characteristics from company annual reports and proxy statements filed with the Securities and Exchange Commission (SEC). Annual reports list the members of the board of directors, and proxy statements contain their biographies,<sup>5</sup> from which we identify whether the primary employer of a director is a commercial bank (banker-director henceforth). We classify a financial institution as a commercial bank if the Federal Deposit Insurance Company (FDIC) lists it as a U.S. chartered commercial bank. Proxy statements also contain detailed information on the employment histories of directors so that we can identify the years for which the director is employed at the bank. We also collect other information about the structure of boards such as the number of board members, the number of insiders, and the tenures of the board members.

## **2.2. Classification of banker-directors on boards**

Having identified the members of the board that are bankers, we classify them as either creditors or unaffiliated banker-directors using data on loan contracts from the Reuters/Loan Pricing Corporation's (LPC) Dealscan database.<sup>6</sup> The data includes the names of all the banks in the lending syndicate at the time of origination; the loan contract date; the amount, maturity, type, and purpose of the loan; and information on the price and non-price terms of the loan contract.

A board member is classified as a creditor if she is an executive of a commercial bank that has extended at least one loan to the company over the previous five years as a sole lender, or as a lead arranger in a syndicate. We require the creditor-director to be employed at one of the

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<sup>4</sup> The sample does not include observations for each firm-year because we condition on the availability of explanatory variables and because some firms in the 2002 S&P 500 drop out of our sample due to mergers, acquisitions, and going private. The patterns in banker presence over time are the same when including all 403 non-financial companies for which we have collected data on board composition. The list of firms included in our analysis is available from the authors.

<sup>5</sup> Public companies are required to disclose the employment histories of their board members and nominees for the previous five years. In general, most companies release the employment histories of their directors for a much longer time, starting from their initial employments.

<sup>6</sup> Dealscan is the most comprehensive and up-to-date source for stand-alone and syndicated loans. See Carey, Post, and Sharpe (1998) for a more detailed description of Dealscan.

lead banks in the syndicate, because the ex-ante due diligence and the ex-post monitoring of a loan is delegated to the lead bank within a syndicate. If there is no lending relationship over the previous five years between a company and a bank where the director is employed, we classify the banker as an unaffiliated banker.

Table 1 summarizes the percentage of companies with at least one commercial banker serving on their board of directors. For each year in our sample (2002 to 2007) we report the percentage of firms with a commercial banker on the board. We see that despite the separation of banking and commerce in the United States, commercial banks are actively engaged in the corporate governance of non-financial companies by holding directorships: bankers are present on boards for 28.9 percent of the sample (company-years), and creditors are present for 11.4 percent of observations.<sup>7</sup> We also report the share of firms with an investment banker present on the board; it is equal to 10 percent and stable over time.

From 2004 to 2005 there is a drop in commercial banker presence on boards, which may be attributed to changes in the regulatory environment shaping the composition of boards of directors following the passage of the Sarbanes-Oxley Act in July 2002. By the end of 2004 large public corporations were scheduled to comply with the new regulations, which dictated the elimination of inside directors from certain board committees and strongly discouraged the presence of affiliated directors. For example, Citigroup executive Robert Rubin resigned from the board of directors of Ford, stating that “Citigroup’s multifaceted relations with Ford could raise a question whether my relationship with Ford and Citigroup creates an appearance of conflict.”<sup>8</sup> However, subsequently (from 2005 to 2007) there is a rebound in the representation of

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<sup>7</sup> Our findings are consistent with the previous literature. Booth and Deli (1999) find 22.2% of non-financial S&P 500 constituent firms to have a commercial banker serving on their boards in 1990. In 1992, 31.6% of the Forbes 500 companies include a director who is a commercial banker, and 5.8% have a director who is an executive of their main lender (Kroszner and Strahan, 2001). For 2000, the percentage of S&P firms with a banker on board is 25 percent (Santos and Rumble, 2004). Güner, Malmendier, and Tate (2008) find that 21 percent of firms in their sample (1988-2001) had unaffiliated bankers on their boards and between 1988 and 2001, 6 percent had creditors on the board. Thus creditor presence on boards has become more prominent over time.

<sup>8</sup> See AP 08/25/2006.

commercial bankers on company boards. The ongoing high level of creditor presence highlights the importance of analyzing whether or not potential conflicts of interest between creditors and shareholders result in value-destroying decisions or if instead creditors provide services on corporate boards that are valuable to the shareholders.

### **2.3. Acquisition data**

In order to analyze acquisition level data, such as deal attributes and market reactions to announcements, we gather information for all completed acquisitions undertaken by the companies in our sample. We include acquisitions with announcement dates and effective dates between January 1, 2002, and December 31, 2007 in the Mergers and Acquisitions database of ThomsonOne Banker. We include both public and private targets and, as is standard, exclude repurchases. Conditional on available equity and credit market data as well as firm- and deal-specific controls, the acquisition sample contains 1641 acquisitions. Table 2 lists the number of acquisitions with a creditor, an unaffiliated banker, or an investment banker present on the board of directors of the acquirer. For 15.7 percent of acquisitions there was a creditor, for 14 percent there was an unaffiliated banker, and for 10.1 percent there was an investment banker present on the board of the acquirer.

To this data we add measures of firm characteristics and market reactions to acquisition announcements. We use accounting data from COMPUSTAT, equity market data from CRSP, and CDS spread data from Markit. Variable definitions and data sources are summarized in the appendix.

## **3. Empirical methodology: Correcting for selection**

We consider three main questions in this paper: (i) Is creditor presence associated with a higher propensity to acquire? (ii) Do companies with creditors on their boards acquire targets

that have attributes that benefit creditors? (iii) What are the wealth effects of acquisitions on the shareholders and creditors when there is a creditor on an acquirer's board? In each case the main equation of interest takes the form

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 D_i + e_i, \quad (1)$$

where  $Y_i$  measures acquisition intensity, acquisition deal attributes, or cumulative abnormal returns for shareholders and creditors of firm  $i$ .  $X_i$  is the set of control variables, and  $D_i$  is a dummy variable indicating the presence of a creditor on the company's board.

In estimating these regressions we explicitly take into account the possibility of bankers self-selecting onto boards of directors, because previous research on banker-directors suggests that the set of companies with a banker on their board are not a random sample. Booth and Deli (1999), Kroszner and Strahan (2001), Byrd and Mizruchi (2005) and Şişli-Ciamarra (2011) find that the probability of having a banker on the board is a function of the firm's size, the extent of information asymmetry (proxied for by market-to-book ratio, research and development expenditure, and presence of short-term credit rating), and previous debt levels. In addition, self selection has become an important empirical concern in studies of corporate boards (Li and Prabhala, 2007; Adams, Hermalin, and Weisbach, 2010).

Consistent with previous work, we find that there are important differences in financial characteristics between companies with and without creditor board presence. Table 3 reports averages of firm-level characteristics for the sample of firm-year observations. We report averages for the full sample and for sub-samples of company-years with and without creditor presence and also test if differences in means are statistically significant.

Creditors serve on the boards of companies that are larger, have higher leverage, lower return volatilities, lower R&D expenditures, lower market-to-book ratios, and a higher likelihood of having a short-term credit rating. Boards with creditors are significantly larger and more independent (fewer insiders). Furthermore, creditors are not serving on the boards of companies

with higher levels of financial distress, as measured by 5-year CDS spread, S&P credit rating, and annual default probability (Campbell, Hilscher, and Szilagyi, 2008). Instead, lower CDS spreads and lower-risk credit ratings suggest that creditor presence is associated with lower credit risk.<sup>9</sup> These results are in agreement with the previous literature including Kroszner and Strahan (2001), who argue that creditors tend to join the boards of financially more stable companies.

We also compare differences in firm financial characteristics and deal-specific variables for the sample of acquisitions. Table 4 reports average characteristics for the full sample and for acquisitions with and without creditor-director presence. Acquirers with creditors have relatively larger cash holdings, lower market-to-book ratios, and lower stock return volatilities. Companies with creditor-directors also have lower levels of credit risk, though differences are not statistically significant. There are also differences in deal attributes: firms with creditors engage in more diversifying and foreign target acquisitions, and significantly fewer cash-only deals. We study these deal attributes in detail when performing multivariate analysis in Section 4.

Differences between firms with and without creditors imply that creditors may be self-selecting onto corporate boards and that OLS estimates for equation (1) may be inconsistent. If there is selection and  $D_i$  is correlated with the error term  $e_i$ , this results in a biased estimator for  $\beta_2$  and also for the other coefficients (Greene, 2003). To correct for this we use the average treatment effects model that is developed specifically to analyze the case of an endogenous dummy variable (Heckman, 1978). The probability of receiving the treatment is modeled together with the structural outcome equation. The full model (Greene, 2003, pp. 787-788) is:

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 D_i + e_i \quad (2a)$$

$$D_i^* = \delta Z_i + u_i \quad (2b)$$

$$D_i = 1 \text{ if } D_i^* > 0$$

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<sup>9</sup> In theory it might be possible that if a firm becomes financially distressed, a bank with an outstanding lending relationship asks one of its employees to join the board of the firm. We do not see any evidence consistent with this hypothesis. Instead, bankers often join boards before they become creditors.

$$D_i = 0 \text{ if } D_i^* < 0$$

where  $D_i$  is an endogenous dummy variable indicating whether or not the treatment is received (whether or not a creditor is present on the board). The binary decision to obtain the treatment is modeled as an outcome of an unobserved latent variable,  $D_i^*$ .  $Z_i$  is a set of characteristics that affect the likelihood of the treatment – in this study whether or not a creditor is present on the board of directors. The individual error terms,  $\varepsilon_i$  and  $u_i$ , are assumed to have a bivariate normal distribution:

$$\varepsilon_i \sim N(0, \sigma)$$

$$u_i \sim N(0, 1)$$

$$\text{corr}(\varepsilon_i, u_i) = \rho.$$

In specifying the treatment equation (2b), we rely on the findings of Booth and Deli (1999), Kroszner and Strahan (2001), Byrd and Mizruchi (2005), Rumble and Santos (2006), and Şişli-Ciamarra (2011), who examine the determinants of banker presence on a company's board of directors. The variables that explain banker-director presence include firm size, total debt, short-term debt, tangible assets, cash holdings (all scaled by assets), as well as stock return volatility, market-to-book ratio, research and development expenditure, default probability, debt rating, ratio of insiders, board size, year dummies, and industry dummies. Board composition does not adjust immediately to changes in a firm's environment but rather with a lag, which is true especially if the board of directors is structured as staggered.<sup>10</sup> We therefore average all explanatory variables in the treatment equation over the past three years.

We discuss the variables included in the structural equation (2a) in Section 4 when we discuss the effect of creditor presence on acquisition activity, types of acquisitions, as well as credit and equity market reactions. We note that in the case of non-linear treatment models the set of explanatory variables included in the structural equation (2a) need not be a subset of the

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<sup>10</sup> A staggered board of directors occurs when a corporation elects only a portion of its directors at a time, with different groups of directors having overlapping multi-year terms, usually three-year terms.

variables in the treatment equation (2b). We therefore in all cases choose appropriate explanatory variables based on the relevant literatures (e.g. determinants of acquisition activity or market reactions). What this also means is that we need not be concerned with exclusion restrictions which, though strictly speaking not necessary in non-linear treatment models (Heckman and Navarro-Lozano, 2004), may be useful in practice (Li and Prabhala, 2007). For example, the treatment equation contains board size, which is associated with banker presence (see Table 3), but the structural equation (2a) does not. Furthermore, since all explanatory variables in the treatment equation are averaged over the past three years, they are different from the explanatory variables in the structural equation.

### **3.1. Estimation strategy**

Statistically significant differences in financial characteristics of firms with and without creditors on their boards suggest that self-selection may be a concern. Therefore, for each model specification we test whether or not there is evidence of self-selection. In average treatment effects estimation, a statistically significant correlation between the error terms of the structural and treatment equations ( $\rho$ ) represents statistical evidence for the presence of self-selection. For each regression specification we therefore test whether or not the correlation coefficient between the error terms is significantly different from zero. If there is evidence of self-selection, specifically, if the correlation coefficient is significant at the 5% level, we estimate the average treatment effects model that controls for it. If there is no such evidence, we use the standard OLS model. Several of the variables we are interested in are binary (e.g. the probability of a company making a diversifying acquisition). For these variables we estimate bivariate probit models instead of using an average treatment effects model.

## 4. Creditor-directors on boards and acquisitions

Creditors benefit from corporate actions that decrease the probability of default. One such action is the acquisition of another company with imperfectly correlated earnings and valuation. Such an acquisition will likely result in a combined firm with lower volatility (coinsurance effect) and therefore increase the value of the company's debt.<sup>11</sup> However, an acquisition may add value to creditors while not increasing shareholder value and therefore potentially lead to conflicts of interest.<sup>12</sup> Thus, if conflicts of interest between shareholders and creditors manifest themselves in acquisition decisions when a creditor serves on a firm's board, we expect such firms to either acquire more or to make acquisitions that benefit creditors but not necessarily shareholders. We first investigate both of these possibilities. We then consider equity and credit market reactions directly.

### 4.1. Acquisition activity

We measure acquisition activity using three dependent variables: (i) *Acquisition dummy* equals one if a firm undertakes at least one acquisition in a given fiscal year, (ii) *Acquisition count* is the number of acquisitions completed in a given fiscal year, (iii) *Acquisition value / total assets*, the relative value of acquisitions, is the ratio of total acquisition value to lagged firm size in a given fiscal year.

Table 5 Panel A reports means for the three measures along with comparison of means tests. During our sample period, in a given year an average company has an unconditional probability of 47.5 percent of completing an acquisition and the average size of acquisitions is 2.9 percent of total assets. Differences across groups with and without a creditor on the board are not statistically significant. The average number of acquisitions per fiscal year is 1.3 (creditor present) compared to 1.1 (no creditor) and this difference is significant at the 10 percent level.

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<sup>11</sup> In the seminal Merton (1974) model of corporate debt the credit spread is an increasing function of asset volatility.

<sup>12</sup> A merger may also positively affect the asset value of either of the companies, for example due to increased synergies. We consider shareholder, creditor and overall firm value responses to acquisition announcements in Section 4.3.3.

The slightly higher number of acquisitions by companies with creditors is consistent with the higher share of acquisitions with creditor presence (15.7%), when compared to the overall fraction of 11.4% of companies with creditors (Table 1). As discussed, these differences may be the direct result of creditor presence but they may also be due to the nature of creditor selection onto corporate boards. For example, larger firms tend to acquire more and are also more likely to have a creditor on their board.

Table 5 Panel B presents results from multivariate regressions, which control for other possible determinants of acquisition activity: Size, market-to-book ratio, cash to assets, capital expenditures to assets, leverage ratio, as well as the governance index,<sup>13</sup> a proxy of the overall corporate governance quality of the acquirer, and ratio of insiders. All regressions include year and industry effects (1 digit SIC codes), and standard errors are clustered at the firm level. The regressions test and control for self-selection if it is present.

We find that creditor presence does not affect acquisition probability, acquisition count or acquisition relative value (columns 1 to 3). The results imply that creditor presence is not associated with increased acquisition intensity.

## **4.2. Types of acquisitions**

What might matter more than acquisition quantity is acquisition quality: Creditors may try to gain by favoring acquisitions with deal attributes that are associated with higher creditor value, and this may come at the expense of shareholder value. Therefore, we next analyze the effects of creditor presence on certain acquisition deal attributes that may be more favorable to creditors: (i) targets in unrelated industries, (ii) foreign targets, (iii) public targets, and (iv) cash-financed acquisitions. We expect creditors to favor a higher likelihood of the first three and a lower frequency of cash deals. Table 6 reports results using a multivariate framework. The first

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<sup>13</sup> See Gompers, Ishii, and Metrick (2003). The Governance Index is a summary measure of corporate governance, based on 24 governance factors provided by the Investor Responsibility Research Center.

set of control variables are acquirer's financial characteristics and include size, market-to-book ratio, cash-to-assets ratio, leverage, prior stock performance, and stock return volatility during the 12 months preceding the acquisition announcement. The second set of control variables relates to deal-specific characteristics: if the target is public or foreign, whether or not the acquisition is diversifying, if the bid is hostile, and what the method of payment is. The final set of control variables includes the ratio of insiders, and the governance index.

#### **4.2.1. Diversifying acquisitions: targets in unrelated industries**

Creditor presence leads to an increase in diversifying acquisitions, which we define as acquisitions of targets in unrelated industries (two-digit SIC code of the acquirer is different from that of the target). Creditors may benefit from diversifying acquisitions because they will likely lead to a reduction in the overall risk of the company. In contrast, diversifying deals are often viewed as being value-destroying for shareholders (e.g., Morck, Shleifer, and Vishny, 1990).

In our sample 47 percent of acquisitions are diversifying when there is no creditor (Table 4) while 61 percent of acquisitions with a creditor involve targets in an unrelated industry. Controlling for firm, deal, and governance measures, creditor-director presence is associated with a 10.4 percent<sup>14</sup> increase in the probability of a diversifying acquisition, which is significant at the 10 percent level (Table 6, column 1).

#### **4.2.2. Foreign targets**

Acquirers may achieve diversification not only by acquiring companies in unrelated industries, but also by acquiring foreign (non-U.S.) companies and achieving international diversification in their operations. Table 4 shows that creditor presence is associated with a higher frequency of foreign target acquisition (36 percent) compared to no creditor (31 percent); the difference in means is statistically significant at the 10% level. In the multivariate setting

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<sup>14</sup> In the table we report probit coefficients. For ease of interpretation we discuss marginal effects in the text.

creditor presence is associated with a 3.8 percent increase in the probability of acquiring a foreign target, though the coefficient is not statistically significant (Table 6, column 2).

#### **4.2.3. Public targets**

Creditor presence is associated with a 3.4 percent increase in the tendency to acquire a public target. The coefficient is significant at the 10 percent level (Table 6, column 3). The higher propensity to acquire public targets is important for shareholders since acquisition of a public target is associated with lower returns to the acquirers' shareholders (Fuller, Netter, Stegemolle, 2002).

#### **4.2.4. Cash-only payment**

The final deal attribute we analyze is the acquisition payment terms. Cash offers are characterized by insignificant abnormal stock returns while acquisitions financed by stock have significantly negative returns (see Travlos, 1987; Wansley, Lane, and Yang, 1987; Franks, Harris, and Mayer, 1988; Loughran and Vijh, 1997; as well as Heron and Lie, 2002 for a review of the literature). Table 4 shows that acquisitions paid for entirely in cash are less frequent in the presence of a creditor (18 percent) compared to no creditor on the board (26 percent). This effect persists in the multivariate results (Table 6, column 4). Creditor presence is associated with a 10.1 percent reduction in the probability that the deal is financed entirely by cash, and this result is significant at the 0.1 percent level.

We note that lower levels of cash financing rules out the hypothesis that companies with creditors on their boards are more likely to acquire since creditors provide loans, perhaps as a favor in return for the board seat. Such increased availability of cash might indirectly help the acquirer finance unnecessary and excessive cash-financed acquisitions. In addition, the results in Table 5 show that there is no evidence for creditor presence leading to higher acquisition intensity. We have also checked that there are no instances of an acquirer obtaining a loan from the director's bank in order to finance the acquisitions (bridge financing).

To summarize, we find that creditor-director presence is associated with a higher likelihood of deal attributes that are less favorable for acquirer shareholders and more favorable for acquirer creditors: more diversification, more public targets, and less cash-only financing.

### 4.3. Market reactions to acquisition announcements

We next consider market reactions to acquisition announcements and show that: (i) the equity market reaction to acquisition announcements is more negative if a creditor is present, consistent with the higher likelihood of acquisitions that have been shown to be value-destroying for shareholders; (ii) the credit market reacts more favorably to acquisitions announcements with creditor-director presence, consistent with higher levels of diversifying and cash-preserving acquisitions that we expect to be value-enhancing for creditors; and (iii) the overall firm value is negatively affected by creditor presence. The results are consistent with the conflicts of interest hypothesis.

#### 4.3.1. Equity market reaction: Negative

We examine market reactions using an event study. We calculate cumulative abnormal returns (CARs) during the eleven-day window ( $t-5, t+5$ ) around acquisition announcement dates:

$$CAR_{i,t-5,t+5} = \prod_{k=t-5}^{t+5} (1 + R_{ik} - R_{mk}) - 1, \quad (3)$$

where  $R_{it}$  is the return on the common stock of firm  $i$  on day  $t$ , and  $R_{mt}$  is the return of the CRSP value-weighted market index for day  $t$ .<sup>15</sup> We then compare returns for acquisitions with and without a creditor-director.

Table 7 Panel A reports average cumulative abnormal returns for the full sample and for the groups with and without a creditor on the board. The average equity return is -0.13 percent. The slightly negative and insignificant average return for acquirers is in line with the literature on

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<sup>15</sup> We calculate excess returns in this way to reduce noise from estimating market betas. We have checked that the results are robust to calculating abnormal returns using the single factor model (market return), where we estimate betas for the 120 trading days ending 10 days prior to the announcement.

mergers and acquisitions (see Andrade, Mitchell, and Stafford, 2001; Bruner, 2002; Tuch and Sullivan, 2007). When a creditor is on the board, the return is slightly larger (0.39 percent) than when there is no creditor (-0.23 percent), though the difference is not statistically significant.

Table 7 Panel B (column 1) presents results from a multivariate analysis, controlling for variables that may influence the equity market reaction to acquisition announcements, and correcting for selection, which is statistically significant at the 1 percent level. Creditor presence is associated with a statistically and economically significant decrease in shareholder wealth: the cumulative abnormal return is 4.3 percent lower when there is a creditor on the board, and the effect is significant at the 5% level.

Since one of our contributions is to highlight the importance of correcting for selection, we briefly discuss the difference between the uni- and multivariate analysis (Panel A and Panel B): The test of independent equations ( $\rho$ ) is rejected at the 1 percent level, which means that there is statistically significant evidence of self-selection. The correlation coefficient is positive (0.53), which implies that the OLS estimate of the coefficient on the creditor dummy (not controlling for self-selection) is biased upward. If we do not control for selection, we are less likely to find a negative relationship between equity returns and creditor presence, consistent with the economically and statistically insignificant unconditional difference in means.

#### **4.3.2. Credit market reaction: Positive**

We next examine the credit market reaction to acquisition announcements. Following Wei and Yermack (2010) we use percent changes in 5-year CDS spreads to measure the credit market reaction.<sup>16</sup> We calculate spread changes over the eleven day period ( $t-5, t+5$ ) around the announcement date; similar to the equity return adjustment we subtract the contemporaneous average spread change in order to adjust for overall credit market movements.

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<sup>16</sup> Wei and Yermack (2010) use CDS spread percent changes (from Markit) to analyze the credit market reaction to the release of CEO inside debt holdings in proxy statements. Acharya and Johnson (2007) and Hilscher, Pollet, and Wilson (2011) also use CDS percent changes to measure information in the credit market.

$$CDSreturn_{i,t-5,t+5} = CDSreturn_{i,t-5,t+5} - CDSreturn_{average,t-5,t+5} \quad (4)$$

Table 7 Panel A reports unconditional average spread changes. For the full sample there is a slight increase in CDS spreads (0.54 percent, marginally statistically significant at the 10 percent level), consistent with Billett, King, and Mauer (2002) who find that the average corporate bond reaction of the acquirer is negative. CDS spreads increase by more if there is no creditor (0.59 percent), compared to virtually unchanged spreads if there is a creditor (0.2 percent, not significant). In Panel B (column 2) we perform a multivariate analysis of the credit market reaction and find that creditor presence is associated with a statistically significant decrease in CDS spreads of 3.3 percent (good news for creditors).<sup>17</sup>

This evidence supports the hypothesis that creditors on boards may prompt management to engage in acquisitions that increase the value of creditors' employers' loan book (a reduction in credit spreads). Creditors can gain either from acquisitions that increase overall firm value or from those that do not increase firm value but reallocate wealth from shareholders to bondholders. The negative and significant effect of creditor presence on shareholder value (column 1) together with the positive and significant effect on creditor value (column 2) is consistent with such wealth transfers.

#### **4.3.3. Total firm value reaction: Negative**

The results for shareholder and creditor reactions suggest adverse wealth transfers. It is also useful to consider a stakeholder point of view and ask how total firm value is affected by creditor presence. Therefore, we next measure the response of overall firm value by calculating the weighted average of equity and debt returns.<sup>18</sup> The equity return is the cumulative abnormal return in (3); we measure the bond return as the return on a 5-year bond that has a credit spread over U.S. Treasuries equal to the CDS spread. To adjust for debt market movements we

<sup>17</sup> This result is in line with the results of Renneboog and Szilagyi (2009), who show that in a more creditor-friendly jurisdiction, bond performance around M&A announcements is higher.

<sup>18</sup> Firm value is equal to the market value of equity plus debt. We therefore need to calculate the firm's debt returns, which are not equal to the spread change used in the previous section.

subtract the average return to calculate abnormal bond returns.<sup>19</sup> We then use leverage, measured as the book value of long term debt divided by the sum of long term debt and market equity, and one minus leverage as weights on debt and equity returns:

$$Firm\_ret_{t-5,t+5} = (1 - leverage) * CAR_{equity,t-5,t+5} + leverage * CAR_{debt,t-5,t+5}. \quad (5)$$

Table 7 Panel A reports unconditional means of firm returns. Consistent with the patterns in equity returns, the average firm return is slightly higher when there is a creditor on the board (0.28 percent) than when there is not (-0.26 percent). However, once we control for selection and other explanatory variables (Table 7 Panel B), we find a negative effect of creditor presence on the firm return of -5.1 percent, which is statistically significant at the 0.1% level.

To summarize, we find evidence in support of the conflicts of interest hypothesis. The presence of creditors on boards result in acquisitions that decrease shareholder value, increase creditor value, and lead to a decrease in overall firm value. The evidence is consistent with the increased tendency of firms with creditor presence to engage in deals with attributes that we expect to be more favorable for creditors, such as more diversifying acquisitions and acquisitions that are less likely financed with cash.

Furthermore, the evidence is inconsistent with the hypothesis of enhanced monitoring, the idea that creditor-directors may be effective monitors of management and that they add value to the board decisions due to their lending relationship with the company and resulting informational advantage. Creditors may thus be both interested and capable to screen out bad investment proposals and select value-enhancing investment projects (Leland and Pyle, 1974; Campbell and Kracaw, 1980; Diamond, 1984; Boyd and Prescott, 1986). The less favorable outcomes associated with creditors do not support the enhanced monitoring hypothesis.

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<sup>19</sup> We use the change in price of a constant maturity 5-year bond trading at par to proxy for the bond return. The yield to maturity is set equal to the 5-year constant maturity U.S. Treasury bond plus the 5-year CDS spread.

We note that our findings cannot be explained by creditors' banks providing financing or acting in advisory capacities. First, creditor-directors do not provide financing for acquisitions that are in our sample. Second, there are no instances where the creditor's bank acts as an advisor to the acquirer or to the target. Moreover, in rare cases more than one creditor serves on an acquirer's board of directors. Our results are robust to excluding these observations.

## **5. Further evidence for conflicts of interest: The role of non-conflicted financial experts**

### **5.1. Unaffiliated banker-directors**

Having documented that creditor presence is associated with less favorable acquisition outcomes for shareholders, we now present further supporting evidence for the conflicts of interest hypothesis. We follow the empirical strategy suggested by Kroszner and Strahan (2001) and Booth and Deli (2003) and turn our attention to unaffiliated banker directors. Unaffiliated bankers possess financial expertise and may enable the company to pick acquisitions that create value. As experts in financial matters, they can use their knowledge to calculate the reservation prices for target firms, evaluate the potential gains from synergies between operations of acquirers and targets, and analyze the risks associated with merger transactions. However, compared to the creditors, they do not have conflicts of interests with shareholders.

We consider the effect of unaffiliated banker presence on equity and credit market responses to acquisitions. 14 percent of the acquisitions in our sample involve unaffiliated banker-directors (Table 2). Since acquisitions with unaffiliated banker presence tend to be undertaken by companies that are more stable (Table 8), we continue to implement tests for evidence of selection and correct for selection if it is present.

Table 9 presents results from a multivariate analysis of market reactions to acquisition announcements. In contrast to creditors, unaffiliated banker presence does not lead to less favorable stock market reactions (column 1). Returns to shareholders are statistically insignificant and close to zero. Unaffiliated banker presence also does not affect credit market outcomes or result in lower levels of firm value (columns 2 and 3). In both cases coefficients are close to zero and not statistically significant. Unaffiliated banker presence on boards is thus associated with acquisition outcomes that do not decrease shareholder value when compared to creditor-director presence.<sup>20</sup> This evidence is consistent with the conflicts of interest hypothesis.

## 5.2. Investment bankers

We also consider the impact of investment bankers on boards and show that their presence is associated with less favorable equity market and overall firm reactions to acquisitions but do not benefit creditors. Investment bankers in our sample are executives of pure investment banks and do not include bank holding companies that provide commercial banking and investment banking services at the same time.

Table 10 reports results from analyzing the effect of investment banker presence on market reactions to acquisition announcements. We find a statistically significant relationship of -5.7 percent between investment banker-director presence and stock returns around the announcement days.<sup>21</sup> Our results are consistent with Güner et al. (2008) who study investment bankers as conflicted financial experts. Our results add to their findings since we control for selection (statistically significant at the 0.1% level) and directly examine credit and firm value responses. For equity returns, the direction of self-selection ( $\rho > 0$ ), indicates that the OLS coefficient is biased upward: controlling for selection the effect of investment banker presence is

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<sup>20</sup> Consistent with the market reaction results, unaffiliated banker presence is also not associated with patterns in acquisition intensity and deal attributes that favor either creditors or shareholders. The (unreported) results are available from the authors.

<sup>21</sup> The negative equity response is consistent with the (unreported) effect of investment banker presence on acquisition behavior and deal attributes: investment banker presence is associated with significantly larger acquisitions and significantly more acquisitions of foreign targets. Results are available from the authors.

therefore more negative as compared to Güner et al. Investment banker presence is not associated with any significant response in the credit market (column 2), similar to unaffiliated banker-director presence. However investment banker presence is associated with a 3.7 percent reduction in total firm value (column 3).

Our results support the conflicts of interest hypothesis and add to our understanding of investment banker presence on boards. Unlike investment bankers, creditors, presumably motivated to preserve the value of their employers' loans to the company, affect credit market returns positively. However, both groups are associated with a reduction in shareholder value.

In an attempt to identify possible direct conflicts of interest with shareholders, we check if the investment banks that employ the directors in our sample provide any advisory services to the acquirers or to the targets in our sample, and do not find any such relationships. Thus the evidence suggests that, even though there are no direct conflicts of interest, investment bankers presence results in acquisitions associated with poor equity and firm-value outcomes.

## **6. Conclusion**

Creditor representation on corporate boards is substantial. Yet, little is known about how it affects corporate behavior. In this study we present evidence consistent with the hypothesis that conflicts of interest lead to wealth transfers from shareholders to creditors (Galai and Masulis, 1976). We analyze acquisition activity, deal attributes and explicitly consider equity, credit, and overall firm value reactions to acquisition announcements using a hand-collected data set for S&P500 non-financial companies from 2002 to 2007. We present evidence of creditor selection onto corporate boards: Boards with and without creditor-directors are different in ways that can bias estimation results. We therefore correct for selection following Heckman (1978).

Creditor presence on a company's board of directors is associated with less favorable

equity market reactions, more favorable credit market reactions, and a reduction in overall firm value. Companies with creditor-directors tend to engage in acquisitions that are more diversifying, acquiring more targets in unrelated industries and public targets, as well as a substantially lower probability of financing the acquisition with cash. The unfavorable equity market reactions are consistent with the deal attributes, which the previous literature has shown to be associated with negative equity returns. Increased diversification and preservation of cash are consistent with the favorable credit market outcomes. The evidence is thus consistent with the conflicts of interest hypothesis.

We present additional evidence in support of the conflicts of interest hypothesis: Unaffiliated bankers, commercial bankers whose employers do not have an ongoing lending relationship with the company, are not associated with negative shareholder or firm-value reactions, nor does their presence result in positive credit market responses. Finally, we show that the presence of investment banker-directors, potentially conflicted financial experts, are associated with negative equity returns but not, in contrast to creditors, favorable credit market outcomes.

Our results add to the ongoing literature on mechanisms of corporate governance. Conflicts of interest between shareholders and creditors are an important potential source for sub-optimal decision making. We show that in the case of acquisition decisions board composition should be a concern.

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**Table 1: Banker presence on boards of directors**

This table reports summary statistics of commercial bankers and investment bankers on boards of directors for the firm-level sample. We report firm-year observations for non-financial companies that are included in the S&P 500 Index at the beginning of 2002. For each year we report the percentage of firms with a commercial banker on the board, the percentage of companies with a creditor, those with an unaffiliated banker (and no creditor), as well as banks with an investment banker on their board. A creditor is an executive of a bank that has extended at least one loan to the company over the previous five years as a sole lender or a lead arranger in a syndicate. An unaffiliated banker is an executive of a bank with no outstanding loan relationship with the company during the previous five years. For ease of comparison with future tables, we report statistics for the regression sample that requires the availability of firm characteristics and governance variables.

Banker presence by fiscal year				
	Commercial banker	Creditor	Unaffiliated banker	Investment banker
2002	32.6%	12.6%	20.0%	9.7%
2003	32.6%	12.1%	20.5%	9.7%
2004	31.6%	11.5%	20.2%	9.9%
2005	24.9%	10.2%	14.7%	9.9%
2006	24.9%	10.6%	14.2%	10.3%
2007	26.1%	11.6%	14.5%	10.1%
2002-2007	28.9%	11.4%	17.5%	10.0%
Number of observations: 2230				

**Table 2: Banker presence during acquisitions**

This table reports summary statistics of commercial bankers and investment bankers on boards of directors for the acquisition sample. The sample includes deals that were announced and completed between 2002 and 2007, where the acquirer is a non-financial company included in the S&P 500 at the beginning of 2002. We report the shares of acquisitions with presence of a commercial banker, creditor, unaffiliated banker (no creditor), and investment banker. For ease of comparison with future tables, we report statistics for the regression sample that requires the availability of market variables, as well as firm-level, deal-level, and governance controls.

	Number	Percentage
Commercial banker	488	29.7%
Creditor	258	15.7%
Unaffiliated banker	230	14.0%
Investment banker	165	10.1%
Number of observations:	1641	

**Table 3: Creditor-director presence and firm-level characteristics**

This table reports summary statistics of firm characteristics for firm-level sample (2002 to 2007). We report averages of firm-year observations for the full sample and for sub-samples with and without creditor presence on the board of directors. We also present p-values for comparison of means tests. Statistics are for the regression sample. Variable definitions are provided in the appendix. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Full sample	Creditor present	Creditor not present	Hypothesis: Equal means (Prob>t)
<b><i>Firm characteristics</i></b>				
Size (\$ billion)	19.6	36.0	17.5	0.000***
Total debt / assets	0.24	0.29	0.23	0.000***
Cash / assets	0.13	0.11	0.14	0.002**
PPE / assets	0.30	0.33	0.30	0.027*
R&D / net sales	0.047	0.030	0.050	0.003**
ROA	0.15	0.14	0.15	0.081
Market-to-book ratio	1.74	1.51	1.77	0.001***
Stock return volatility	0.098	0.086	0.099	0.000***
CDS spread	98.7	76.6	102.2	0.143
Credit rating	8.1	7.6	8.2	0.008***
Default probability	0.0049	0.0051	0.0049	0.722
Short-term credit rtg. available	0.56	0.73	0.54	0.000***
<b><i>Governance variables</i></b>				
Board size	10.7	11.6	10.6	0.000***
Ratio of insiders	0.16	0.15	0.16	0.003**
Governance index	9.8	9.6	9.8	0.170
Number of observations: 2230				

**Table 4: Creditor director presence and acquisition summary statistics**

This table reports summary statistics of firm and acquisition characteristics for the acquisition sample (2002 to 2007). We report averages for the full sample and for sub-samples with and without creditor presence on the board of directors. We also present p-values for comparison of means tests. Statistics are for the regression sample. Variable definitions are provided in the appendix. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Full sample	Creditor present	Creditor not present	Hypothesis: Equal means (Prob>t)
<b><i>Acquirer financial characteristics</i></b>				
Size (\$ billion)	30.9	27.1	31.6	0.303
Cash / assets	0.100	0.114	0.097	0.009**
Market-to-book ratio	1.68	1.50	1.71	0.001***
Total debt / assets	0.227	0.231	0.226	0.617
Stock return volatility	0.081	0.077	0.082	0.049*
Prior stock performance	0.137	0.158	0.134	0.205
CDS spread	57.5	49.3	59.1	0.227
Credit rating	6.8	6.7	6.8	0.439
Default probability	0.0040	0.0034	0.0042	0.156
<b><i>Governance variables</i></b>				
Board size	11.4	11.4	11.3	0.526
Ratio of insiders	0.146	0.137	0.147	0.058
Governance index	9.9	9.8	9.9	0.700
<b><i>Deal attributes</i></b>				
Diversifying acquisition	0.488	0.609	0.466	0.000***
Foreign target	0.316	0.364	0.307	0.071
Public target	0.133	0.128	0.135	0.776
Cash only payment	0.250	0.178	0.263	0.004**
Hostile takeover	0.0018	0.0000	0.0022	0.454
Number of observations: 1641				

**Table 5: Creditor presence on board of directors and relative acquisition activity**

The table reports summary statistics and regression results for acquisition activity. The sample includes firm-year observations (see Table 1) of the companies in our data set (2002 to 2007). A creditor is an executive of a bank that has extended at least one loan to the company over the previous five years as a sole lender or a lead arranger in a syndicate. Acquisition dummy is equal to 1 if there was an acquisition in the fiscal year, equal to 0 if there was not; Number of acquisitions counts acquisitions in the fiscal year; Acquisition value / total assets measures the relative value of acquisitions (assets are measured as of the end of the previous year); since acquisition size is not always available, the sample size (1604) is smaller for this variable. Panel A reports summary statistics. Panel B reports model estimation results; if there is statistically significant evidence for selection, we correct for it. Explanatory variables are defined in the appendix. Regressions include industry effects (1-digit SIC industry dummies) and year fixed effects. Absolute values of t-statistics (reported below coefficients) are calculated from standard errors that are robust and clustered by acquirer. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

Panel A: Comparison of means			
	Acquisition dummy	Number of acquisitions	Acquisition value / total assets
All	0.475	1.109	0.029
Creditor present	0.482	1.314	0.017
Creditor not present	0.474	1.083	0.030
Hypothesis: Equal means (Prob>t)	0.800	0.068	0.178
Panel B: Multivariate analysis			
	Acquisition dummy	Number of acquisitions	Acquisition value / total assets
Creditor on board	0.0121 [0.917]	0.128 [0.569]	-0.00609 [0.407]
<b>Firm financial controls</b>			
Size	0.149 [0.000]***	0.379 [0.000]***	-0.00585 [0.095]
Market-to-book ratio	0.0977 [0.008]**	0.193 [0.001]***	0.0138 [0.036]*
Cash / assets	-0.611 [0.063]	-0.936 [0.070]	0.0188 [0.566]
Capital expenditures / assets	-2.170 [0.066]	-5.475 [0.000]***	-0.0101 [0.889]
Total debt / assets	-0.847 [0.003]**	-1.422 [0.000]***	0.00544 [0.892]
<b>Governance controls</b>			
Governance index	-0.0145 [0.404]	-0.0328 [0.281]	0.00177 [0.200]
Ratio of insiders	0.0627 [0.872]	0.143 [0.807]	0.0234 [0.422]
Constant	-1.210 [0.008]**	-1.702 [0.008]**	0.0365 [0.349]
Observations	2230	2230	1604
Method of estimation	Probit	Probit	Probit
Self-selection	No	No	No

**Table 6: Creditor presence on board of directors and deal attributes**

This table reports model estimation results for the acquisition sample (2002 to 2007). The dependent variables are: diversification dummy (equal to 1 if the 2-digit SIC codes for the acquirer and the target are different); foreign target dummy (equal to 1 if the target is a non-US company); public target dummy (defined similarly), and cash-only dummy (equal to 1 if the method of payment is identified as "cash-only" in the ThomsonOne database). The explanatory variables are defined as in the appendix. Regressions include industry effects (1-digit SIC industry dummies) and year fixed effects. Due to multi-collinearity the hostile takeover dummy is dropped in the public target model. Absolute values of t-statistics (reported below coefficients) are calculated from standard errors that are robust and clustered by acquirer. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Diversifying acquisition	Foreign target	Public target	Cash-only payment
Creditor on board	0.261 [0.067]	0.106 [0.426]	0.185 [0.096]	-0.372 [0.001]***
<b><i>Firm financial controls</i></b>				
Size	0.0594 [0.387]	0.0206 [0.703]	0.137 [0.014]*	-0.123 [0.022]*
Market-to-book ratio	-0.121 [0.110]	-0.0354 [0.534]	0.0775 [0.200]	-0.0444 [0.429]
Cash / assets	-1.103 [0.095]	0.170 [0.740]	0.748 [0.171]	1.176 [0.068]
Total debt / assets	-1.202 [0.031]*	-0.264 [0.546]	-0.463 [0.302]	-0.136 [0.739]
Prior stock performance	0.0556 [0.693]	-0.163 [0.220]	0.224 [0.207]	0.132 [0.302]
Stock return volatility	0.984 [0.532]	0.0327 [0.984]	-0.934 [0.578]	-1.040 [0.452]
<b><i>Deal-specific controls</i></b>				
Diversifying acquisition		-0.199 [0.019]*	-0.233 [0.020]*	-0.0443 [0.624]
Foreign target	-0.198 [0.019]*		-0.0664 [0.517]	-0.206 [0.013]*
Public target	-0.245 [0.031]*	-0.0855 [0.458]		1.299 [0.000]***
Hostile takeover	1.139 [0.011]*	0.288 [0.689]		-0.197 [0.819]
Cash-only payment	-0.0468 [0.620]	-0.216 [0.014]*	1.173 [0.000]***	
<b><i>Governance controls</i></b>				
Governance index	0.0444 [0.116]	-0.0231 [0.288]	0.0258 [0.253]	0.0183 [0.399]
Ratio of insiders	-0.0331 [0.957]	-0.365 [0.452]	-0.174 [0.773]	0.356 [0.498]
Constant	-1.138 [0.178]	0.166 [0.833]	-2.589 [0.001]**	-0.231 [0.745]
Observations	1641	1641	1638	1641
Method of estimation	Probit	Probit	Probit	Probit
Self-selection	No	No	No	No

**Table 7: Creditor presence and equity and credit market reactions**

This table reports equity, credit market, and firm value reactions around announcements of acquisitions completed by the companies in our sample (2002 to 2007). Market reactions are for the event window (t-5,t+5). Panel A reports means for three cases: all observations, creditor present on the board of directors, no creditor present. Equity return is the cumulative abnormal equity return; credit spread change is the percent change in the CDS spread, adjusted for contemporaneous market-wide CDS spread movements using the mean spread change; firm return is the abnormal firm return calculated using a weighted average of abnormal equity and excess debt return based on the return to a 5-year bond with a yield equal to Treasury yield plus CDS spread, weighted using market equity and book value of long-term debt; to control for outliers, spread changes and bond returns are winsorized at the 0.5% and the 99.5% levels. Panel B reports model estimation results; if there is statistically significant evidence for selection, we correct for it. The explanatory variables are defined as in the appendix. All regressions include industry effects (1-digit SIC industry dummies) and year fixed effects. P-values (reported below coefficients) are calculated from standard errors that are robust and clustered by year. \* , \*\* , and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

Panel A: Comparison of means			
	Equity return	CDS spread change	Firm return
All	-0.00131 [0.280]	0.00537 [0.096]	-0.00173 [0.229]
Creditor present	0.00388 [0.216]	0.00242 [0.563]	0.00283 [0.269]
Creditor not present	-0.00228 [0.135]	0.00592 [0.100]	-0.00258 [0.114]
Hypothesis: Equal means (Prob>t)	0.00616 [0.107]	-0.00350 [0.490]	0.00540 [0.060]
Number of observations: 1641			

**Table 7 cont.**

Panel B: Multivariate Analysis			
	Equity return	CDS spread change	Firm return
Creditor on board	-0.0431 [0.049]*	-0.0331 [0.004]**	-0.0507 [0.000]***
<b><i>Firm financial controls</i></b>			
Size	0.00301 [0.124]	0.00489 [0.327]	0.00292 [0.108]
Market-to-book ratio	-0.00350 [0.189]	0.00581 [0.223]	-0.00435 [0.070]
Cash / assets	-0.00948 [0.692]	-0.0647 [0.166]	-0.000815 [0.971]
Total debt / assets	0.0455 [0.085]	-0.0229 [0.508]	0.0267 [0.063]
Prior stock performance	0.000529 [0.936]	-0.0210 [0.057]	0.00291 [0.601]
Stock return volatility	0.0106 [0.869]	0.234 [0.008]**	-0.0395 [0.506]
<b><i>Deal-specific controls</i></b>			
Diversifying acquisition	-0.00737 [0.124]	-0.0000519 [0.994]	-0.00637 [0.128]
Foreign target	0.00621 [0.077]	-0.00587 [0.340]	0.00544 [0.101]
Public target	-0.00186 [0.613]	0.00989 [0.000]***	-0.00131 [0.705]
Hostile takeover	-0.00360 [0.798]	0.114 [0.167]	-0.00456 [0.713]
Cash-only payment	0.0110 [0.002]**	0.00334 [0.650]	0.00787 [0.002]**
<b><i>Governance controls</i></b>			
Governance index	0.000194 [0.770]	0.00208 [0.069]	0.000223 [0.701]
Ratio of insiders	0.0295 [0.224]	-0.0682 [0.009]**	0.0192 [0.277]
Constant	-0.0265 [0.351]	-0.0621 [0.317]	-0.0157 [0.447]
Observations	1641	1641	1641
Method of estimation	Treatment Effects	Treatment Effects	Treatment Effects
Self-selection	Yes	Yes	Yes
Test of indep. equations: P>chi <sup>2</sup>	0.004	0.000	0.000
rho	0.53	0.19	0.70

**Table 8: Unaffiliated banker-director presence and acquisition summary statistics**

This table reports summary statistics of firm characteristics for the acquisition sample (2002 to 2007). Summary statistics are for the full sample (unaffiliated banker or no banker), and for firm-years with an unaffiliated banker on the board or no banker on the board. Statistics are for the regression sample. The variables are defined in the appendix. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Full sample	Unaffiliated banker present	No banker present	Hypothesis: Equal means (Prob>t)
<b>Acquirer financial characteristics</b>				
Size (\$ billion)	31,588	23,258	33,250	0.043*
Cash / assets	0.10	0.08	0.10	0.004**
Market-to-book ratio	1.71	1.67	1.72	0.410
Total debt / assets	0.23	0.22	0.23	0.499
Stock return volatility	0.082	0.078	0.083	0.150
Prior stock performance	0.13	0.16	0.13	0.094
CDS spread	61.7	41.5	65.7	0.028**
Credit rating	6.8	6.1	7.0	0.000***
Default probability	0.004	0.003	0.004	0.031*
<b>Governance variables</b>				
Board size	11.3	10.7	11.5	0.000***
Ratio of insiders	0.15	0.17	0.14	0.000***
Governance index	9.9	9.7	9.9	0.202
<b>Deal attributes</b>				
Diversifying acquisition	0.466	0.544	0.450	0.010**
Foreign target	0.307	0.344	0.300	0.193
Public target	0.134	0.152	0.131	0.390
Cash only payment	0.263	0.300	0.256	0.165
Hostile takeover	0.002	0.004	0.002	0.437
Number of observations: 1383				

**Table 9: Unaffiliated banker-directors and wealth effects of acquisitions**

This table reports regression results for equity, credit market, and firm value reactions around announcements of acquisitions for the sample with unaffiliated banker presence or no banker. Market reactions are for the event window (t-5,t+5) and are defined as in Table 7; to control for outliers, spread changes and bond returns are winsorized at the 0.5% and the 99.5% levels. Explanatory variables are defined in the appendix. All regressions include industry effects (1-digit SIC industry dummies) and year fixed effects. Absolute values of t-statistics (reported below coefficients) are calculated from standard errors that are robust and clustered by year. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Equity return	CDS spread change	Firm return
Unaffiliated banker on board	0.00155 [0.421]	0.00260 [0.663]	0.00141 [0.396]
<b><i>Firm financial controls</i></b>			
Size	0.00155 [0.421]	0.00260 [0.663]	0.00141 [0.396]
Market-to-book ratio	-0.00174 [0.522]	0.00600 [0.289]	-0.00209 [0.372]
Cash / assets	-0.0185 [0.377]	-0.0567 [0.402]	-0.0125 [0.508]
Total debt / assets	0.0394 [0.185]	-0.0310 [0.428]	0.0244 [0.152]
Prior stock performance	-0.000553 [0.942]	-0.0170 [0.236]	0.00327 [0.638]
Stock return volatility	0.0121 [0.877]	0.202 [0.116]	-0.0244 [0.659]
<b><i>Deal-specific controls</i></b>			
Diversifying acquisition	-0.00770 [0.137]	-0.000538 [0.942]	-0.00672 [0.145]
Foreign target	0.00621 [0.127]	-0.00375 [0.642]	0.00527 [0.142]
Public target	0.00125 [0.779]	0.00440 [0.097]	0.00163 [0.722]
Hostile takeover	-0.00430 [0.754]	0.114 [0.234]	-0.00267 [0.832]
Cash-only payment	0.0101 [0.033]*	0.00626 [0.485]	0.00688 [0.051]
<b><i>Governance controls</i></b>			
Governance index	-0.0000494 [0.949]	0.00159 [0.405]	-0.0000303 [0.965]
Ratio of insiders	0.0385 [0.256]	-0.0763 [0.019]*	0.0293 [0.244]
Constant	-0.0191 [0.574]	-0.0350 [0.671]	-0.0129 [0.566]
Observations	1383	1383	1383
Method of estimation	OLS	OLS	OLS
Self-selection	No	No	No

**Table 10: Investment bankers and wealth effects of acquisitions**

This table reports model estimation results for equity, credit market, and firm value reactions around announcements of acquisitions for the sample with investment banker presence or no banker (same as in Table 9); if there is statistically significant evidence for selection, we correct for it. Market reactions are for the event window (t-5,t+5) and are defined as in Tables 7 and 9; to control for outliers, spread changes and bond returns are winsorized at the 0.5% and the 99.5% levels. Explanatory variables are defined in the appendix. All regressions include industry effects (1-digit SIC industry dummies) and year fixed effects. Absolute values of t-statistics (reported below coefficients) are calculated from standard errors that are robust and clustered by year. \*, \*\*, and \*\*\* denote significance at the 5%, 1%, and 0.1% level respectively.

	Equity return	CDS spread change	Firm return
Investment banker on board	-0.0565 [0.004]**	-0.00347 [0.831]	-0.0370 [0.000]***
<b><i>Firm financial controls</i></b>			
Size	0.000854 [0.637]	0.00248 [0.669]	0.00100 [0.506]
Market-to-book ratio	-0.00170 [0.597]	0.00575 [0.314]	-0.00214 [0.389]
Cash / assets	-0.0282 [0.151]	-0.0601 [0.349]	-0.0180 [0.231]
Total debt / assets	0.0274 [0.143]	-0.0331 [0.424]	0.0162 [0.176]
Prior stock performance	-0.00118 [0.880]	-0.0167 [0.253]	0.00296 [0.645]
Stock return volatility	0.00446 [0.955]	0.191 [0.166]	-0.0326 [0.543]
<b><i>Deal-specific controls</i></b>			
Diversifying acquisition	-0.00671 [0.091]	-0.0000965 [0.990]	-0.00622 [0.090]
Foreign target	0.00712 [0.047]*	-0.00329 [0.680]	0.00599 [0.048]*
Public target	0.0000297 [0.994]	0.00463 [0.105]	0.000700 [0.858]
Hostile takeover	-0.00730 [0.607]	0.114 [0.228]	-0.00383 [0.762]
Cash-only payment	0.00982 [0.000]***	0.00642 [0.472]	0.00680 [0.004]**
<b><i>Governance controls</i></b>			
Governance index	0.0000525 [0.934]	0.00144 [0.446]	0.0000312 [0.956]
Ratio of insiders	0.0273 [0.214]	-0.0716 [0.041]*	0.0222 [0.207]
Constant	0.00111 [0.961]	-0.0289 [0.720]	0.000499 [0.975]
Observations	1383	1383	1383
Method of estimation	Treatment Effects	OLS	Treatment Effects
Self-selection	Yes	No	Yes
Test of indep equations: P>chi2	0.000		0.000
rho	0.67		0.55