Shareholder-Creditor Conflict and Payout Policy: Evidence from Mergers between Lenders and Shareholders

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Abstract

This paper studies how the conflict of interest between shareholders and creditors affects corporate payout policy. Using mergers between lenders and equity holders of the same firm as an exogenous shock to the conflict between shareholders and creditors, I show that firms pay out less when there is less conflict between shareholders and creditors, suggesting that shareholder-creditor conflict may induce firms to pay out more at the expense of creditors. I also find that the effect is stronger for firms in financial distress.

Keywords: Shareholder-Creditor Conflict, Dual Holding, Dividend Policy, Financial Distress

JEL Code: G21, G23, G32, G34, G35

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1 Introduction

Conflict of interest between shareholders and creditors affects corporate policies, real and financial (Jensen and Meckling 1976, Myers 1977, and Smith and Warner 1979). Smith and Warner (1979) summarize that shareholder-creditor conflict can induce agency costs such as excessive dividend payments, claim dilution, asset substitution, and underinvestment. While theories on the causes and consequences of shareholder-creditor conflict are well developed and understood, the empirical literature still lacks systematic evidence on the causal effects of shareholder-credit conflict on corporate policies. It is fair to say that the empirical literature on shareholder-creditor conflict is under-developed, compared with empirical literature on other sources of agency conflict, such as shareholder-manager conflict of interests. This paper aims at advancing the empirical literature on the causal effect of shareholder-creditor conflict by examining how shareholder-creditor conflict affects payout policy.

Black (1976) points out that "there is no easier way for a company to escape the burden of a debt than to pay out all of its assets in the form of a dividend, and leave the creditors holding an empty shell". In this case, payout policy reflects the extreme form of shareholder-creditor conflict. Because of the potential extreme impact shareholder-creditor conflict can have on payout policy, it is important to understand exactly how shareholder-creditor conflict affects payout policy. However, the existing literature on the effect of agency costs on payout policy has paid most of its attention to the conflict between managers and shareholders and has paid rather little attention to the relationship between shareholder-creditor conflict and payout policy. In a recent survey on payout policy, Farre-Mensa, Michaely, and Schmalz (2014) discussed no papers related to shareholder-creditor conflict. In an earlier review article, Allen and Michaely (2003) reviewed only a handful of papers on the relationship between shareholder-creditor conflict and payout policy, most of which show, at best, indirect

evidence on the relevance of shareholder-creditor conflict in affecting payout policy. In this paper, I show direct and causal evidence that shareholder-creditor conflict has a significant impact on payout policy.

The lack of empirical evidence on the causal effect of shareholder-creditor conflict on payout policy is probably due to the difficulty of empirically measuring shareholder-creditor conflict. An even more challenging task is to capture exogenous variation of the conflict uncorrelated with unobservable factors that also affect payout policy. In this paper, I overcome this difficulty by exploiting plausibly exogenous variation of shareholder-creditor conflict driven by mergers between shareholders and creditors. When a creditor and a shareholder of the same firm merge, their interests with respect to the firm become aligned, and therefore the conflict of interest between this particular pair of shareholder and creditor is reduced. On the other hand, a merger between shareholders and creditors is unlikely to be motivated by factors related to the particular firm because a creditor often have many borrowers and an institutional shareholder often holds stocks of many firms. As such, the merger between a creditor and a shareholder is likely to satisfy both the relevance and the exclusion conditions, which then allows me to identify the causal effect of shareholder-creditor conflict on payout policy using the mergers between shareholders and creditors as natural experiments.

To construct the sample of mergers between lenders and shareholders, I first identify all mergers between financial firms from SDC from 1987 to 2011; second, I match the names of the acquirers or the targets of the mergers with lender names from DealScan; third, for those mergers matched with lenders, I then match the names of the counter party of the merger with manager names from Thomson Reuter's 13f database. All matches are manually checked to ensure accuracy. For each merger matched with a lender on one side of the merger and an institutional shareholder on the other side of the merger, I then identify the firms that are borrowers of the lender and whose stocks are held by the counter party institutional

shareholder at the time of the merger. To make sure that the mergers result in significant changes in shareholder-creditor conflict, I further require that the institutional investors hold more than 1% of all shares outstanding at the time of the merger and the lender is allocated more than 10% of the loan at origination. These firms are designated as treated firms. For each treated firm, I then find control firms by matching on firm size, Tobin's q, institutional ownership, and leverage.

In a difference-in-differences framework with a six-year window, three years before and three years after the merger, I find that treated firms reduce payout, as measured both by cash dividends and total payout, relative to control firms after the merger. The result is consistent with the argument that shareholder-creditor conflict results in wealth transfers from creditors to shareholders in the form of excessive dividend payout, and the merger between a lender and a shareholder of the same firm aligns the interests of the two and therefore leads to lower payout.

The alignment of the interest between shareholders and creditors should increase with the stakes the shareholders and lenders have in the treated firm at the time of the merger. To this end, I find that the strength of the negative effect of the merger on payout increases with the percentage of stocks owned by the merging institutional shareholder. Similarly, I also find that the effect increases with the size of the loan allocated to the merging lender. These results provide further evidence that the negative effect of the merger is unlikely to be driven by unobservable factors that are also affected by the merger because the effects of these unobservable factors are unlikely to be correlated with the institutional shareholder's stock holdings or the lender's loan allocation. One particular concern is that the baseline results can be driven by reduced asymmetric information between shareholders and the firm (or managers) because shareholders get access to private information possessed by the lender after the merger. The signaling theory of dividend policy (Miller and Rock 1985)

then suggests that less information asymmetry can lead to lower dividend payout. Because lenders have equal access to private information regardless of their stakes in the loan, their stakes in the loan should not affect how the merger affects payout policy if the effect is driven by information asymmetry. The results that the effect of the merger increases with the lenders' stakes therefore suggests that the baseline results are unlikely to be driven by decreased information asymmetry between shareholders and the firm.

To ensure that the result is indeed driven by reduced shareholder-creditor conflict of interests, I further explore whether the effect of the merger is stronger for firms in financial distress. As pointed by Ayotte, Hotchkiss, and Thorburn (2013), shareholder-creditor conflict often becomes exaggerated during firm financial distress as shareholders take extreme actions, including paying excessive dividends to themselves, to extract wealth from creditors. DeAngelo and DeAngelo (1990) show that firms are reluctant to cut dividends even when the firm is is financial distress, suggesting intensified conflict of interest between shareholders and creditors in financial distress. Using leverage and distance-to-default as measures of financial distress, I find that the negative effect of the merger on payout is stronger for firms in financial distress. The result further suggests that the merger between shareholders and creditors affects payout policy via its impact on shareholder-creditor conflict.

I also examine what the firms do with saved cash flow due to decreased payout. Specifically, I examine how the merger between shareholders and lenders affects corporate investment, external financing, and changes in cash holdings. To this end, I find that the merger has a significant and negative effect on external debt financing, but not on corporate investment, equity financing, or cash holdings. The result is consistent with the argument that shareholder-creditor conflict causes firms to issue new debt to dilute the claims of existing creditors and to finance payout to further transfer wealth from creditors to shareholders.

I conduct extensive robustness tests. First, to mitigate the concern that some lenders

may sell the loans after origination, I examine a subsample in which the lender is the lead arranger of the loan and find that the results remain robust. I then also find that the results remain robust on mergers occurring within one year of loan origination. Second, I vary the length of the window over which I conduct the difference-in-differences estimation. One concern is that loans may mature or the institutional investors may sell the shares if the window is too long. I find that the results remain robust for shorter windows.

To ensure that the results are not driven by unobservable characteristics of the merging lenders or the merging institutional shareholder, I try two alternative matching methods to find the control firms. In the first alternative matching method, I require the control firms to also be held by the merging institutional investor and then match the firms based on firm size, Tobin's Q, and leverage. Comparing treated and control firms also held by the merging institutional shareholder eliminates any confounding effects due to unobservable shareholder characteristics. Similarly, in the second method, I require the control firms to also be a borrower of the merging lender, and then match the firm based on firm size, Tobin's Q, and institutional investors. Comparing treated and control firms both borrowing from the merging lender eliminates any confounding effects due to unobservable lender characteristics. Using both methods, I find that the baseline results remain intact, suggesting that the results are not driven by unobservable lender or shareholder characteristics.

The identification of the difference-in-differences estimation relies on the parallel trend condition, that is, the outcome variables have parallel trends in the absence of treatment. While the parallel trend condition is untestable, I follow the advice of Roberts and Whited (2012) to conduct a placebo test as follows. For each actual merger, I create a fictional merger that occurs four years before the actual merger, and at the same time maintain the assignment of treated and control firms. I then examine whether the fictional mergers have any effect on corporate payout policy. If trend differences exit between treated and control

firms before the merger, the effect should also show up in the placebo test. In contrast, I find no effect of the fictional mergers on payout policy, suggesting that the baseline results are unlikely to be driven by pre-existing trend differences between treated and control firms.

This paper adds to the literature on the causes and consequences of shareholder-creditor conflict, especially to the relatively small literature on payout policy in the presence of shareholder-creditor conflict. Smith and Warner (1979) find that bonds often contain covenants restricting dividend payments due to shareholder-creditor conflict. John and Kalay (1982) derive optimal payout constraints in the presence of shareholder-creditor conflict. Kalay (1982) provides empirical evidence that payout constraints are set to prevent wealth transfer from debt holders to shareholders, that is, to control shareholder-creditor conflict. Brockman and Unlu (2009) find that creditors demand a more restrictive payout policy *ex ante* when creditors have weaker rights *ex post*. These studies all suggest that shareholder-creditor conflict can impact payout policy. However, the evidence so far is indirect, and it remains an open question whether shareholder-creditor conflict has any causal effect on payout policy.

The paper is also related more broadly to the literature on causes and consequences of shareholder-creditor conflict. Early papers such as Modigliani and Miller (1958), Black and Cox (1976), Jensen and Meckling (1976), Myers (1977), and Smith and Warner (1979) all point out the importance of shareholder-creditor conflict in affecting corporate real and financial policies. Empirically, many papers have documented the incidence of the conflict. For example, Smith and Warner (1979) examine how bond covenants are designed to mitigate shareholder-creditor conflict. Warga and Welch (1993) find that leverage buyouts increase shareholder value at the expense of bondholders. Masulis (1980) finds that exchanging preferred stock to outstanding common stock benefits shareholders but hurts bondholders. Billett (1996) offers a case in which shareholder-creditor conflict may affect a firm's likelihood of being acquired. Alexander, Edwards, and Ferri (2000) find a negative correlation between

stock and bond returns around potential agency conflict events. Klock, Mansi, and Maxwell (2004), Cremers, Nair, and Wei (2007) and Chava, Livdan, and Purnanandam (2009) find that strong shareholder rights may negatively affect bond prices. Using covenant violations as shocks to credit control, Roberts and Sufi (2009), Nini, Smith, and Sufi (2009, 2012) find that improving creditor control rights leads to significant changes in corporate financial and real policies. This paper contributes to this strand literature by providing direct and causal evidence of the impact of shareholder-creditor conflict on payout policy.

This paper also adds to the recent literature on the effect of dual holders who simultaneous hold debt securities and stocks of the same company. For example, Jiang, Li, and Shao (2010) find that the existence of dual holders lowers loan spreads, suggesting that dual holders help mitigate shareholder-creditor conflict. Chava, Wang, and Zou (2015) find that the existence of dual holders reduces the use of covenants restricting capital expenditure, and in the event of covenant violation, firms with dual holders are unlikely to suffer a significant drop in debt issuance or investment expenditure. Bodnaruk and Rossi (2015) find that the existence of dual holders of target firms in M&A deals have higher merger premiums and larger abnormal bond returns. While these papers provide many insights into the potential effects of dual holders in mitigating shareholder-creditor conflict, it suffers from an obvious endogeneity problem. For example, if a firm is more likely to suffer from the conflict of interest between shareholders and creditors *ex ante*, the firm may decide to borrow from an institutional lender who also holds its shares to mitigate the potential conflict. Therefore, the existence of dual holders may be correlated with unobservable firm characteristics. This paper, using the mergers between lenders and shareholders as a natural experiment that generates plausibly exogenous variation in shareholder-creditor conflict of interest, is therefore able to identify the causal effect of shareholder-creditor conflict on corporate policies. Furthermore, none of the aforementioned papers examines the impact of dual holders on payout policy.

The rest of the paper is organized as follows. Section 2 describes the natural experiment and sample construction; section 3 presents the main empirical results, section 4 presents some robustness test results; and section 5 concludes.

2 Sample Construction and Identification Strategy

2.1 Sample Construction

The sample construction starts with all mergers between financial firms from 1987-2011 in the SDC mergers and acquisitions database. I begin the merger sample from 1987 because only since then the DealScan database starts to have comprehensive coverage of loans. I stop the merger sample at 2011 because I need three years of data after the merger in the analysis. In the second step, I obtain lenders' information from the LPC DealScan database, and match the lender names with the names of either the acquirers or the targets of the financial mergers. In matching acquirer names, I not only match the names of the lenders directly involved in the merger, I also match the names of the parent companies of the lenders and acquirers. Wherever possible, I use the addresses of the companies in both databases to facilitate the match. After this step, I retain all mergers for which either the acquirer or the target can be matched with a lender in the DealScan database. In this third step, I obtain institutional investors' information from the Thomson Reuter's 13f database, and match the investors' names with the unmatched acquirer or target names from the last step. I again not only match the names of companies directly involved but also match the names of their parent companies for acquirers. I also use company addresses to facilitate the match. All matches are manually checked to ensure accuracy. This procedure produces a sample of 2,881 mergers between a lender in the Dealscan Database and an institutional investor in the 13f database.

The next step is to search for firms affected by these mergers, that is, to find the treated firms. I first identify all firms that borrowed from the merging lender, and then retain only those whose loans have not expired at the time of the merger. I then also require that the merging institutional investor in the same merger holds stocks of the firm at the end of the quarter immediately before the merger. To ensure that both the lender and the institutional stock investor have sufficient stakes in the firm, I require that the lender participates more than 10% of the loan at origination and the institutional stock investor holds more than 1% of all shares outstanding of the firm.[1] I then exclude firms in financial and utility industries and firms with missing key variables. This procedure produces a sample of 2,127 treated firms involved in 210 mergers. On average, each merger affects about ten firms. However, the median number of firms affected by a merger is only three. The distribution of the mergers across time is presented in Table 1. The mergers are fairly evenly distributed across time, with year 1997 having the greatest number of mergers (17) and year 1987, year 1993, year 2003, and year 2010 having the smallest number of mergers (4).

Next, I follow a similar procedure as in Hong and Kacperczyk (2010) to find control firms. Specifically, I require control firms to be in the same quintiles sorted based on total assets, Tobin's Q, leverage, and the percentage of institutional ownership. I match control firms based on total assets and Tobin's Q because they are important determinants of payout policy. I match control firms based on leverage and the percentage of institutional ownership because treated firms, by design, have debt in their capital structure and are owned by institutional shareholders. I then rank the control firms based on the differences of total assets, Tobin's Q, leverage, and institutional ownership compared to their corresponding treated firms. I compute the rank of the differences for each of these four variables, and then compute the total rank across all four variables. I retain control firms with the five lowest

[1]The same threshold used by Jiang, Li, and Shao (2010) in identifying dual holders.

total ranks. That is, for each treated firm, I retain at most five control firms based on their total ranks. This procedure produces a sample of 7,941 control firms.

The empirical methodology requires specifying a time window around the merger dates. In choosing the appropriate time window, the trade-off is always between a long window that may incorporate information unrelated to the merger and a short window that contains too few observations. In the baseline specification, I choose a six-year window, which contains three years before the merger and three years after the merger. To ensure clean identification, I discard firm fiscal years during which the merger occurred. To ensure robustness, I also try two-year, four-year, and ten-year windows, and find similar results.

The final step of sample construction involves matching both treated and control firms in the sample with their financial information in Compustat, institutional ownership information from 13f, and detailed loan information from DealScan.

2.2 Identification Strategy

I use the merger between a lender and an institutional shareholders of the same firm as an exogenous shock to shareholder-creditor conflict. When the lender and the institutional shareholder merge, their interests with respect to the firm become aligned, and therefore the conflict of interests between the lender and the shareholder is reduced. On the other hand, lenders often lend to hundreds of firms at each point in time and are therefore unlikely to make merger decisions based on factors related to one particular firm. Similarly, institutional shareholders also often hold stocks of many firms at each point in time and are also unlikely to pursue mergers based on factors related to one particular firm. As such, the mergers between lenders and institutional shareholders are likely to satisfy both the relevance and the exclusion conditions. In this paper, I therefore treat the mergers as natural experiments that exogenously decrease the conflict of interest between shareholders and creditors.

To identify the causal effect of shareholder-creditor conflict on payout policy, I adopt the difference-in-differences specification as follows:

$$Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Post_{ijt} + \gamma X_{it-1} + \epsilon_{ijt}, \tag{1}$$

where Y_{it} is measures of dividend or total payout of firm i in year t; $Treat_{ij}$ equals one if firm i is a treated firm in merger j, and zero otherwise; $Post_{ijt}$ equals one if the firm year observation is after the announcement of merger j; α_{ij} is the merger-firm fixed effects; α_t is the year fixed effects; and X_{it-1} is a vector of control variables. In this specification, $Treat_{ij}$ and $Post_{ijt}$ are subsumed by the merger-firm fixed effects and the year fixed effects, respectively. I use merger-firm fixed effects instead of just firm fixed effects because a firm can be a treated firm in one merger and a control firm in another. The difference-in-differences coefficient estimate β captures the marginal effect of the merger in affecting payout policy. To account for the potential correlation between firms affected by the same merger, I cluster standard errors by merger in all estimation results reported below. However, the results are robust if I instead cluster standard errors by firm.

2.3 Variables and Summary Statistics

I use two measures of payout, *Dividend*, defined as cash dividend (DVC) scaled by market value of common equity (PRCC_F × CSHO), and *Payout*, defined as total payout (DVC+PRSTKC) scaled by market value of common equity.

The control variables include: *Log Assets* – the natural logarithm of total assets (AT), *Tobin's Q* — market value of total assets (PRCC_F×CSHO-CEQ+AT) divided by book value of total assets (AT), *Cash* —cash and short term investment (CHE) scaled by total assets (AT), *Age* — the number of years the firm appeared in Compustat, *Leverage* – total

debt (DLTT + DLC) scaled by total assets (AT). *Tangibility* – total property, plant, and equipment (PPENT) scaled by total assets (AT), and *Sale Growth* — the growth rate of sales (SALE).

Table 2 reports the summary statistics of all variables used in the empirical analysis. The table shows that the average dividend yield of the sample is 1.16%, and the average total payout yield is 3.31%. The average total assets is about $4.5 billion dollars, suggesting that the firms included in the sample are relatively large firms in the Compustat universe. The average Tobin's Q is around 1.85, which is similar to the average Tobin's Q of the Compustat universe. The average leverage ratio is about 26.2%, which is slightly higher than an average Compustat firm. The average firm age in the sample is about 18 years old.

To ensure that the treated firms and control firms are comparable, I also compare the means of the variables of treated and control firms measured at the fiscal year end immediately before the merger. The results are presented in Table 3. Except for cash holdings and sales growth, the treated and control firms are similar in most dimensions, as the differences between the key variables are small and are mostly statistically insignificant.

3 Main Results

3.1 Baseline Results

I first present the baseline results of estimating Equation (1) in Table 1. In columns (1) and (2), I first present the results for *Dividend* with and without the controls. The merger, which reduces the conflict between shareholders and creditors, can also potentially affect the control variables, that is, the control variables can be endogenous. Estimating Equation (1) both with and without the controls ensures that the results are not driven by these endogenous control variables. In both columns, the difference-in-differences estimates,

that is, the coefficients on *Treat* × *Post* are negative and statistically significant at the 1% level. The effect is also economically significant. Taking the coefficient in column (2), the effect of the merger between a lender and a shareholder leads to a decrease of dividend yield by more than 6% of the average dividend yield in the sample.

In columns (3) and (4), I present the results for *Payout*. The difference-in-differences estimates are again both negative and statistically significant. Economically, the merger reduces the total payout yield by more than 9% of the average payout yield in the sample. Overall, the results are consistent with the argument that the conflict of interest between shareholders and creditors may induce shareholders to pay excessive dividends to themselves at the expense of creditors. And when the conflict of interest is reduced by the merger between a lender and a shareholder, the incentive to overpay dividends is reduced and therefore dividend payout is reduced.

3.2 Stakes in the Firm and the Effect of the Merger

I then examine how the stakes of the investors in the treated firm at the time of the merger alter the effects of the merger on payout policy. The extent to which the merger reduces the conflict between shareholders and creditors depends on stakes the merging lender and shareholder have in the firm. If the baseline results are driven by reduced conflict of interest, the effect of the merger should be stronger when the merging shareholder own more shares of the firm or when the merging lender's loan accounts for a large share of the firm's total assets. On the other hand, if the result is driven by other unobservable factors correlated with the merger, it is unlikely to be correlated with the stakes of the merging lenders and shareholders.

One particular concern is that the baseline results may be driven by reduced information asymmetry between shareholders and the firm (managers). Lenders often have access to

private information, and the merging with a lender allows the shareholder to gain access to the private information. The signaling theory of dividend policy (Miller and Rock 1985) suggests that firms pay dividends to signal the quality of the firm in the presence of information asymmetry. The merger, which reduces the information asymmetry between shareholders and the firms, therefore can reduce the need of the firm to signal with dividend, that is, the merger can reduce dividend payout through its impact on information asymmetry.

To examine whether the baseline results are indeed driven by reduced information asymmetry or aligned interests between shareholders and creditors, I examine whether the strength of the effect increases with the size of loan contributed by the merging lender. If the effect is mainly driven by shareholder-creditor conflict, loan size should matter. On the other hand, however, lenders, regardless of the size of their contributions to the loan, have equal access to the information released by the loan; and hence the effect of the merger on reducing information asymmetry should not be affected by the lender's loan size. It follows that the lender's contribution to the loan should not impact the effect of the merger on payout if the baseline results are driven by information asymmetry.

To this end, I sort the observations into terciles according to the merging lender's loan size (the total amount of the loan allocated to the lender) scaled by the firm's total assets and redo the analysis on the top and bottom terciles separately. The results are presented in Panel A of Table 5. The effect of the merger is stronger if the merging lender has a larger stake in the firm as measured by his loan contribution scaled by firm total assets. In fact, the difference-in-differences estimates are negative and statistically significant for observations in the top tercile, and are much smaller and statistically insignificant for observations in the bottom tercile. The difference of the estimates are also statistically significant. Overall, the results are consistent with the argument that the merger reduces shareholder-creditor conflict and that the effect is stronger if the stakes of the merging lenders are larger.

I then similarly sort the observations into terciles according to the percentage of shares owned by the merging institutional shareholder at the quarter end immediately before the merger, and then re-estimate the difference-in-differences specification in Equation (1) on the top and bottom terciles separately. The results are presented in Panel B of Table 5, with columns (1) and (2) for *Dividend* and Columns (3) and (4) for *Payout*. The results show that the difference-in-differences estimates remain negative and statistically significant in columns (1) and (3), for observations in the top tercile sorted by shares owned by the merging investors. In contrast, the estimates are much smaller and statistically insignificant in columns (2) and (4), for observations in the bottom tercile. Furthermore, the differences between the estimates in columns (1) and (2) and between columns (3) and (4) are both statistically significant. The results suggest that the effect of the merger is stronger when the merging institutional investor holds more shares of the firm at the time of the merger, which is consistent with argument that the negative effect of the merger on payout is driven by reduced conflict of interest between shareholders and creditors.

3.3 Financial Distress and the Effect of the Merger

Conflict of interest between shareholders and creditors often becomes exaggerated when the firm is in financial distress (Smith and Warner 1979, Gilson, John, and Lang 1990, Gilson and Vetsuypens 1993, and Ayotte, Hotchkiss, and Thorburn 2013). It then follows that the alignment of interest between shareholders and creditors via the merger should have a stronger effect in resolving the conflict. I therefore test this conjecture to provide further support to the argument that the results are driven by reduced conflict of interest between shareholders and creditors.

To test this conjecture, I first sort the firms into terciles based on their leverages measured immediately before the merger, and then re-estimate the difference-in-differences specifica-

tion on the top and bottom terciles separately. The results are presented in Panel A of Table 6. Consistent with the conjecture that shareholder-creditor conflict is more severe when the firm is in financial distress and the alignment of the interest of shareholders and creditors via the merger will have a stronger effect, the results show that the effect concentrates in the top tercile of firms sorted on leverage, i.e., more financially distressed firms. In contrast, the effect is small and statistically insignificant in non-financially distressed firms.

I also sort the firms based on an alternative measure of financial distress, the distance-to-default measure, calculated using the method as in Bharath and Shumway (2008). The results, presented in Panel B of Table 6, show similar patterns as those in Panel A. The merger between the lender and the shareholder has a stronger effect in financially constrained firms than in non-financially constrained firms.

Overall, the results suggest that while shareholders have stronger incentive to pay excessive dividends at the expense of creditors when the firm is in financial distress, the align of the interest between shareholders and creditors also has a stronger effect in mitigating the shareholder-creditor conflict when the firm is in financial distress. The results therefore provide further support to the argument that the merger affects payout policy via its effect on shareholder-creditor conflict.

3.4 Where Do the Saved Dividends Go?

When a firm decreases payout, the firm can either save the money or can increase investment. In addition, the firm can also reduce external financing. Understanding where the saved dividends go can provide further insights into the effect of the alignment of interest between shareholders and creditors. To this end, I examine how the merger between the lender and the shareholder affects investment, debt and equity financing, and changes in cash holding. Specifically, I examine three investment variables, *Capex* (defined as CAPX

divided by AT), *R&D* (defined as XRD divided by AT), and *Acquisition* (defined as AQC divided by AT), two financing variables, *Debt Financing* (defined as DLCCH-DLTIS-DLTR divided by AT) and *Equity Financing* (defined as SSTK defined by AT), and one cash holding variable, *Change in Cash* (defined as CHECH divided by AT). All these variables are measured in percentage points.

To estimate the effect of the merger on these variables, I replace the dependent variable in Equation (1) with these variables. The results are presented in Table 7. The difference-in-differences estimates are mostly small and statistically insignificant. The only exception is *Debt Financing*, for which the difference-in-differences estimate is negative and statistically significant. The results are consistent with the argument in Smith and Warner (1979), who suggest that the conflict of interest between shareholders and creditors can lead to excessive payout and claim dilution. The results suggest that excessive payout and claim dilution are closely related, and excessive payout is often financed by debt issuance, which dilutes the claims of existing creditors. The merger, which aligns the interest of the lenders and shareholders, simultaneously reduces payout and debt issuance.

4 Robustness Checks

4.1 The Parallel Trend Condition

The consistency of the difference-in-differences estimates depends on the parallel trend condition, i.e., the outcome variables should have parallel trends in the absence of the treatment. Although the parallel trend condition is untestable, I follow the advice of Roberts and Whited (2012) to conduct a visual examination of the payout policy around the mergers. Specifically, I examine the evolution of *Dividend* and *Payout* around the mergers for treated and control firms separately and the results are presented in Figure 1, with Panel

A for *Dividend* and Panel B for *Payout*. The figure shows that both *Dividend* and *Payout* follow similar trends before the events. After the event, however, although the control firms continue their pre-event trend, the treated firms experience an abrupt change of the trend. The results suggest (although do not prove) that the parallel trend condition is likely to be satisfied.

4.2 A Placebo Test

To provide further evidence that the baseline results are not driven by pre-existing trend differences between treated and control firms, I conduct a placebo test as follows. For each merger in the sample, I create a fictional merger that occurs four years before the actual merger. At the same time, I maintain the assignment of the treated and control firms, that is, the treated firms and control firms in the placebo test are the same treated and control firms as those in the baseline tests. I also focus on a six-year window around the fictional mergers, that is, three years before and three years after the fictional mergers. Mathematically, I estimate the following difference-in-differences specification using the fictional merger events as the treatment:

$$Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Pseudo\ Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}, \tag{2}$$

where, all variables are defined exactly the same as those in Equation (1), except for $Pseudo\ Post$, which equals one if the firm-year observation is after the fictional merger, and zero otherwise.

Under this specification, β captures the effect of the fictional mergers on payout policy. If the baseline results are driven by pre-existing trend differences between treated and control firms, the effect is also likely to show up in the placebo test.

The results of the placebo test are presented in Table 8. In columns (1) and (2) for *Dividend*, the difference-in-differences estimates are small, positive, and statistically insignificant. In columns (3) and (4) for *Payout*, while the difference-in-differences estimates are negative, they are much smaller than those in Table 4 and are statistically insignificant. The results of the placebo test therefore suggest that the pre-existing trend differences between treated and control firms are unlikely to drive the baseline results.

4.3 Changing Positions by the Lenders and the Shareholders

The DealScan data only report loan allocation at origination, and the lender can sell their loans in the secondary loan market. It is therefore possible that the lenders may have already sold the loans at the time of the merger, and consequently the merger may not affect shareholder-creditor conflict at all because the sample construction is based on loan allocation at origination. Although such noise may only bias against any finding, I still address this problem in this subsection to ensure the robustness of the results.

I first focus on a sub-sample in which the merging lender is a lead bank of the loan taken by the firm. In syndicated loans, lead banks screen and monitor the borrowers and performing those tasks require them to always have a stake in the firm, that is, lead banks often do not (completely) sell the loans they lead. The estimation results on this sub-sample are presented in Panel A of Table 9. The difference-in-difference estimates all remain negative and statistically significant.

I then also focus on another sub-sample in which the merger occurs within one year of loan origination. The short time between loan origination and the merger makes it less likely that the lenders sell the loan in the secondary market before the merger. Furthermore, to ensure that the lenders are also more likely to hold the loans in the post period, I also restrict the analysis to be over a two-year window, that is, one year before and one year after the

merger. Focusing on the shorter window also makes it unlikely that the institutional investor will sell all the shares in the post period. The estimation results are presented in Panel B of Table 9. The difference-in-differences estimates are again all negative and statistically significant. Overall, the results in Table 9 suggest that changing positions of lenders or shareholders are not a major concern.

4.4 Unobservable Shareholder or Lender Characteristics and Alternative Matching Methods

One potential concern is that the results can be driven by unobservable characteristics of the merging lenders or the merging institutional shareholders. For example, if the merging lender's ability to monitor shareholders and to press the shareholders not to pay excessive dividends increases over time, it can cause the payout of all borrowers of the merging lender to decrease over time. On the other hand, if the merging institutional investor may become increasingly passive who does not use its shares to press the firm to pay excessive dividends at the expense of the creditors, all firms whose stocks held by the merging investor can also experience a decline in payout. In these cases, the baseline results can simply be driven by unobservable characteristics of the merging lenders or the merging institutional shareholders but not by the alignment of interests between the lenders and the shareholders. I use two alternative matching methods to address these concerns.

First, to address unobservable shareholder characteristics, I require the control firms to also be held by the merging shareholder at the time of the merger. I then further require the control firms to be in the same quintiles sorted based on total assets, Tobin's Q, and leverage. I drop institutional holding as a matching requirement as it is replaced by the requirement of having the same shareholder. The results using this matching method are presented in

Panel A of Table 10. Similar to the baseline results, the difference-in-differences estimates all remain negative and statistically significant, suggesting that the baseline results are unlikely to be driven by unobservable shareholder characteristics.

To address unobservable lender characteristics, I require the control firms to also have loans outstanding borrowed from the merging lender at the time of the merger. I then further require the control firms to be in the same quintiles sorted based on total assets, Tobin's Q, and institutional ownership as the treated firm. I drop leverage as a matching requirement as it is replaced by the requirement of borrowing from the merging lender. The results using this matching method are presented in Panel B of Table 10. The difference-in-differences estimates again remain negative and statistically significant, suggesting that the baseline results are unlikely to be driven by unobservable lender characteristics.

5 Conclusion

This paper examines the causal effect of shareholder-creditor conflict on payout policy using a novel identification strategy. I use mergers between lenders and institutional shareholders of the same firm as natural experiments that generate plausibly exogenous variation in the conflict of interest between shareholders and creditors. I find that following the merger, treated firms reduce their payout to shareholders, suggesting that shareholders pay excessive dividends to themselves at the expense of creditors when the interests of shareholders and creditors are not aligned. Consistent with the argument that shareholder-creditor conflict often becomes exaggerated when the firm is in financial distress, I find that the effect is stronger for financially distressed firms. I also find that the saved payout is not used to finance investment or internal cash holding, rather firms borrow less external debt.

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Table 1: Distribution of Mergers between lenders and institutional shareholders
This table presents the yearly distribution of the mergers used in this paper. The mergers are merger and acquisition deals between lenders in the DealScan database and institutional shareholders in the Thomson Reuter's 13f database.

Year	Freq.	Percent	Cum.
1987	4	1.9	1.9
1988	6	2.86	4.76
1989	5	2.38	7.14
1990	7	3.33	10.48
1991	5	2.38	12.86
1992	6	2.86	15.71
1993	4	1.9	17.62
1994	9	4.29	21.9
1995	10	4.76	26.67
1996	12	5.71	32.38
1997	17	8.1	40.48
1998	15	7.14	47.62
1999	9	4.29	51.9
2000	9	4.29	56.19
2001	10	4.76	60.95
2002	12	5.71	66.67
2003	4	1.9	68.57
2004	6	2.86	71.43
2005	8	3.81	75.24
2006	15	7.14	82.38
2007	5	2.38	84.76
2008	11	5.24	90
2009	11	5.24	95.24
2010	4	1.9	97.14
2011	6	2.86	100
Total	210	100	

Table 2: Summary Statistics

This table reports the summary statistics of the variables used in this paper. The variables are: *Dividend* – cash dividend (DVC) scaled by market value of common stocks (PRCC_F × CSHO), *Payout* – total payout (DVC+PRSTKC) scaled by the market value of common stocks, *Capex* – capital expenditure (CAPX) scaled by total assets (AT), *R&D* – R&D expense (XRD) scaled by total assets (AT), *Acquisition* – Acquisition expense (AQC) scaled by total assets (AT), *Debt Financing* – changes in total liability (DLCCH-DLTIS-DLTR) scaled by total assets, *Change in Cash* – change in cash holding (CHECH) scaled by total assets, *Log Assets* – the natural logarithm of total assets (AT), *Tobin's Q* – market value of total assets (PRCC_F × CSHO+AT-CEQ) divided by total assets (AT), *Cash* – cash holding (CHE) scaled by total assets (AT), *Leverage* – total liability (DLC+DLTT) scaled by total assets (AT), *Tangibility* – total property, plant, and equipment (PPENT) scaled by total assets (AT), *Sale Growth* – change in sales (SALE) divided by lagged sales, *Age* – the number of years since the firm first appear in Compustat.

	Obs.	Mean	S.D.	p25	Median	p75
Dividend	44,557	1.152	1.616	0.000	0.443	1.859
Payout	44,557	3.292	4.492	0.005	1.856	4.503
Capex	44,233	8.256	10.972	2.811	5.105	9.205
R&D	44,557	2.580	4.907	0.000	0.000	3.043
Acquisition	41,497	5.008	11.831	0.000	0.252	3.962
Debt Financing	20,898	1.265	7.690	-2.143	0.000	3.814
Equity Financing	43,255	2.244	6.156	0.123	0.500	1.438
Change in Cash	44,544	1.012	5.472	-0.863	0.246	2.402
Log Assets	44,557	6.980	1.600	5.907	6.945	8.072
Tobin's Q	44,557	1.848	1.034	1.237	1.554	2.081
Cash	44,557	0.099	0.128	0.016	0.049	0.130
Leverage	44,557	0.260	0.173	0.139	0.248	0.361
Tangibility	44,557	0.320	0.233	0.139	0.257	0.450
Sale Growth	44,557	0.206	0.816	0.016	0.096	0.214
Age	44,557	17.576	9.204	10.000	17.000	24.000

Table 3: Comparing treated and control firms before treatment

This table reports the t-test results of the main variables between treated and control firms measured at the fiscal year immediately before the merger announcement date. Variable definitions can be found in the note to Table 2. Significance of the difference between treated and control firms at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

	Treat	Control	Difference
Dividend	1.172	1.094	0.063
	(0.039)	(0.029)	(0.043)
Payout	3.312	3.126	0.186
	(0.106)	(0.054)	(0.117)
Log Assets	7.025	7.057	-0.031
	(0.037)	(0.019)	(0.040)
Tobin's Q	1.852	1.833	0.019
	(0.023)	(0.011)	(0.024)
Cash	0.094	0.101	-0.007**
	(0.002)	(0.002)	(0.003)
Leverage	0.266	0.265	0.001
	(0.004)	(0.002)	(0.004)
Sale Growth	0.199	0.185	0.014*
	(0.008)	(0.004)	(0.008)
Age	16.717	16.650	0.068
	(0.218)	(0.111)	(0.239)
Inst Own	75.001	75.769	-0.767
	(0.712)	(0.352)	(0.764)

Table 4: Baseline Results

This table reports the baseline difference-in-differences estimation results of $Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}$. The dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.074**	-0.079***	-0.289***	-0.302***
	(0.029)	(0.029)	(0.108)	(0.100)
Log Assets		0.071***		0.638***
		(0.025)		(0.131)
Tobin's Q		-0.073***		-0.301***
		(0.011)		(0.051)
Cash		0.259*		2.961***
		(0.150)		(0.506)
Leverage		-0.428***		-5.743***
		(0.132)		(0.428)
Tangibility		-0.157		-1.326***
		(0.202)		(0.451)
Sale Growth		-0.026***		-0.128***
		(0.007)		(0.037)
Age		-0.019**		0.004
		(0.009)		(0.043)
Constant	1.758***	1.679***	2.107*	0.791
	(0.217)	(0.277)	(1.193)	(1.274)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	44,557	44,557	44,557	44,557
Adjusted R-squared	0.724	0.726	0.296	0.316

Table 5: Stakes in the Firm and the Effect of the Mergers

This table reports the difference-in-differences estimation results of $Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}$ on sub-samples partitioned on measures of the stakes of the institutional shareholder (Panel A) and the stakes of the lender (Panel B) in the firm. In both panels, the dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

Panel B: The Stake of the Lender

	Dividend		*Payout*	
	High	Low	High	Low
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.138***	-0.054	-0.560**	-0.302
	(0.040)	(0.057)	(0.220)	(0.185)
Log Assets	0.066***	0.046	0.667***	0.693***
	(0.024)	(0.052)	(0.117)	(0.178)
Tobin's Q	-0.042***	-0.145***	-0.281***	-0.406***
	(0.016)	(0.027)	(0.066)	(0.088)
Cash	0.585**	-0.058	3.460***	2.861***
	(0.230)	(0.262)	(0.574)	(0.913)
Leverage	-0.212	-0.622***	-4.196***	-8.322***
	(0.204)	(0.212)	(0.536)	(0.783)
Tangibility	0.224	-0.685**	0.210	-4.046***
	(0.281)	(0.339)	(0.595)	(1.073)
Sale Growth	-0.026**	-0.053**	-0.099***	-0.266***
	(0.011)	(0.024)	(0.034)	(0.076)
Age	0.022	-0.039***	0.034	-0.013
	(0.017)	(0.010)	(0.043)	(0.098)
Constant	-0.026	3.185***	-1.925*	2.994
	(0.405)	(0.423)	(0.997)	(3.307)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	14,863	14,851	14,863	14,851
Adjusted R-squared	0.715	0.719	0.281	0.323

Panel A: The Stake of the Institutional Shareholder

	Dividend		*Payout*	
	High	Low	High	Low
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.120***	-0.035	-0.351**	-0.231
	(0.044)	(0.058)	(0.168)	(0.197)
Log Assets	-0.027	0.097**	0.500**	0.684***
	(0.042)	(0.043)	(0.229)	(0.186)
Tobin's Q	-0.091***	-0.057**	-0.334***	-0.338***
	(0.019)	(0.028)	(0.103)	(0.067)
Cash	0.148	0.392	3.859***	2.328***
	(0.202)	(0.263)	(0.870)	(0.821)
Leverage	-0.274*	-0.527*	-6.035***	-6.099***
	(0.165)	(0.297)	(0.741)	(0.712)
Tangibility	-0.360	-0.170	-1.910**	-1.590
	(0.353)	(0.403)	(0.861)	(1.114)
Sale Growth	-0.020	-0.019	-0.153***	-0.137**
	(0.015)	(0.014)	(0.054)	(0.065)
Age	0.003	-0.026**	-0.020	-0.016
	(0.014)	(0.011)	(0.068)	(0.047)
Constant	1.939***	1.621***	2.762	1.042
	(0.441)	(0.393)	(2.139)	(1.416)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	14,869	14,847	14,869	14,847
Adjusted R-squared	0.714	0.731	0.332	0.310

Table 6: Financial Distress and the Effect of the Merger

This table reports the difference-in-differences estimation results of $Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}$ on sub-samples partitioned on measures financial distress of the firm. The measure of financial distress is leverage in Panel A, and is distance-to-default in Panel B. In both panels, the dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

Panel A: Leverage

	Dividend		*Payout*	
	High	Low	High	Low
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.163**	-0.023	-0.707***	-0.134
	(0.072)	(0.041)	(0.205)	(0.180)
Log Assets	0.186***	-0.012	0.901***	0.593***
	(0.050)	(0.038)	(0.154)	(0.177)
Tobin's Q	-0.045	-0.054***	-0.145*	-0.304***
	(0.029)	(0.011)	(0.087)	(0.062)
Cash	0.070	0.463***	1.762	3.529***
	(0.270)	(0.166)	(1.104)	(0.816)
Leverage	-0.817***	-0.007	-6.211***	-3.851***
	(0.161)	(0.236)	(0.576)	(0.601)
Tangibility	-0.142	-0.272	-1.922**	0.035
	(0.348)	(0.270)	(0.787)	(0.654)
Sale Growth	-0.021*	-0.031***	-0.078	-0.165***
	(0.012)	(0.009)	(0.063)	(0.047)
Age	-0.031*	0.019**	-0.082	-0.081***
	(0.019)	(0.008)	(0.051)	(0.028)
Constant	1.156**	1.081***	1.230	2.842***
	(0.565)	(0.215)	(1.200)	(1.041)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	14,847	14,852	14,847	14,852
Adjusted R-squared	0.731	0.690	0.297	0.323

Panel B: Distance-to-Default

	Dividend		*Payout*	
	Low	High	Low	High
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.168***	-0.065	-0.911**	-0.115
	(0.064)	(0.061)	(0.451)	(0.478)
Log Assets	0.628**	0.093	1.806***	1.021**
	(0.293)	(0.109)	(0.383)	(0.483)
Tobin's Q	-0.007	-0.109***	-0.529**	-0.179**
	(0.086)	(0.022)	(0.259)	(0.089)
Cash	-0.363	0.580**	4.934*	3.188**
	(0.545)	(0.260)	(2.595)	(1.516)
Leverage	-2.066***	0.038	-9.968***	-3.585***
	(0.647)	(0.224)	(1.378)	(1.037)
Tangibility	0.595	0.240	-3.196*	-0.409
	(0.745)	(0.467)	(1.800)	(2.335)
Sale Growth	-0.040	-0.041*	-0.122	-0.168**
	(0.026)	(0.022)	(0.096)	(0.072)
Age	-0.091**	-0.024	-0.072	-0.099
	(0.038)	(0.017)	(0.135)	(0.085)
Constant	-0.925	1.375*	-2.720	-1.348
	(1.540)	(0.768)	(3.072)	(2.386)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	11,974	11,976	11,974	11,976
Adjusted R-squared	0.835	0.904	0.568	0.701

Table 7: Where Do the Saved Dividend Go

This table reports the difference-in-differences estimation results of $Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}$. The dependent variable is *Capex* in column (1), *R&D* in column (2), *Acquisition* in column (3), *Debt Financing* in column (4), *Equity Financing* in column (5), and *Change in Cash* in column (6). *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

	(1) *Capex*	(2) *R&D*	(3) *Acquisition*	(5) *Debt Financing*	(6) *Equity Financing*	(7) *Change in Cash*
Post × *Treat*	-0.048	0.017	-0.486	-0.810**	-0.039	0.122
	(0.202)	(0.046)	(0.319)	(0.371)	(0.183)	(0.127)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	44,233	44,557	41,497	20,898	43,255	44,544
Adjusted R-squared	0.702	0.876	0.255	0.230	0.316	0.144

Table 8: A Placebo Test

This table reports the placebo difference-in-differences estimation results of $Y_{it} = \alpha_{ij} + \alpha_t + \beta Treat_{ij} \times Pseudo\ Post_{jt} + \gamma X_{it-1} + \epsilon_{ijt}$. The dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Pseudo Post* equals one if the firm-year observation is after the fictional merger, which occurs fours before the actual merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
Treat × *Post*	0.014	0.025	-0.077	-0.044
	(0.030)	(0.031)	(0.094)	(0.092)
Log Assets		0.172***		0.471***
		(0.027)		(0.100)
Tobin's Q		-0.053***		-0.339***
		(0.012)		(0.035)
Cash		0.341**		2.051***
		(0.157)		(0.436)
Leverage		-0.464***		-4.653***
		(0.084)		(0.355)
Tangibility		0.191		-0.907*
		(0.163)		(0.538)
Sale Growth		-0.030***		-0.080***
		(0.007)		(0.024)
Age		-0.071***		-0.031*
		(0.008)		(0.018)
Constant	2.736***	1.935***	2.643***	2.210***
	(0.212)	(0.250)	(0.311)	(0.582)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	44,526	44,526	44,526	44,526
Adjusted R-squared	0.740	0.743	0.309	0.326

Table 9: Changing Positions of the Lender and the Shareholder

This table reports the difference-in-differences estimation results to address the possibility that lenders or institutional shareholders may change their positions after loan origination or after the merger. In Panel A, the estimation is performed on a sub-sample in which the merging lender is a lead lender of the loan; in Panel B, the estimation is performed on mergers that occur within one year of loan origination and over a two-year window around the merger. The dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

Panel A: Lead Lenders Only

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.086*	-0.095**	-0.271**	-0.326**
	(0.045)	(0.046)	(0.126)	(0.160)
Log Assets		0.069**		0.627***
		(0.034)		(0.119)
Tobin's Q		-0.068***		-0.251***
		(0.016)		(0.053)
Cash		0.609***		2.603***
		(0.191)		(0.680)
Leverage		-0.198		-5.270***
		(0.165)		(0.596)
Tangibility		0.020		-0.168
		(0.201)		(0.670)
Sale Growth		-0.027**		-0.105***
		(0.011)		(0.037)
Age		-0.008		0.023
		(0.012)		(0.052)
Constant	1.431***	1.187***	1.521	-0.206
	(0.292)	(0.349)	(1.359)	(1.431)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	18,378	18,378	18,378	18,378
Adjusted R-squared	0.732	0.734	0.313	0.329

Panel B: Mergers within One Year of Loan Origination

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.199**	-0.188**	-0.616**	-0.508*
	(0.092)	(0.088)	(0.312)	(0.281)
Log Assets		0.071		0.332
		(0.072)		(0.368)
Tobin's Q		-0.059		0.076
		(0.041)		(0.232)
Cash		0.051		2.326
		(0.380)		(2.149)
Leverage		-1.167*		-6.315***
		(0.678)		(1.930)
Tangibility		-0.463		-3.642
		(0.851)		(2.563)
Sale Growth		-0.013		-0.179*
		(0.025)		(0.099)
Age		-0.001		-0.058
		(0.038)		(0.199)
Constant	0.983**	1.254*	4.192	5.253
	(0.417)	(0.741)	(4.174)	(5.361)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	4,541	4,541	4,541	4,541
Adjusted R-squared	0.731	0.735	0.329	0.348

Table 10: Alternative matching methods

This table reports the difference-in-differences estimation results using two alternative matching methods. In Panel A, control firms are required to have loans outstanding also borrowed from the merging lender; in Panel B, control firms are required to also be held by the merging institutional shareholder at the time of the merger. The dependent variable in columns (1) and (2) is *Dividend* and the dependent variable in columns (3) and (4) is *Payout*. *Treat* equals one if the firm is a treated firm of the merger, and zero otherwise. *Post* equals one if the firm-year observation is after the merger. All regressions include year fixed effects and merger-firm fixed effects. Standard errors are clustered by merger. Significance at 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

Panel A: Match with the Same Shareholder

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
*Treat * Post*	-0.060**	-0.063**	-0.253**	-0.263**
	(0.028)	(0.028)	(0.125)	(0.111)
Log Assets		0.074**		0.524***
		(0.029)		(0.120)
Tobin's Q		-0.078***		-0.249***
		(0.010)		(0.040)
Cash		0.212		2.507***
		(0.139)		(0.599)
Leverage		-0.546***		-5.825***
		(0.135)		(0.515)
Tangibility		-0.461***		-1.348***
		(0.161)		(0.425)
Sale Growth		-0.010		-0.111***
		(0.007)		(0.032)
Age		-0.006		0.014
		(0.009)		(0.056)
Constant	1.364***	1.417***	2.147	1.406
	(0.231)	(0.289)	(1.546)	(1.677)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	41,300	41,300	41,300	41,300
Adjusted R-squared	0.736	0.738	0.315	0.335

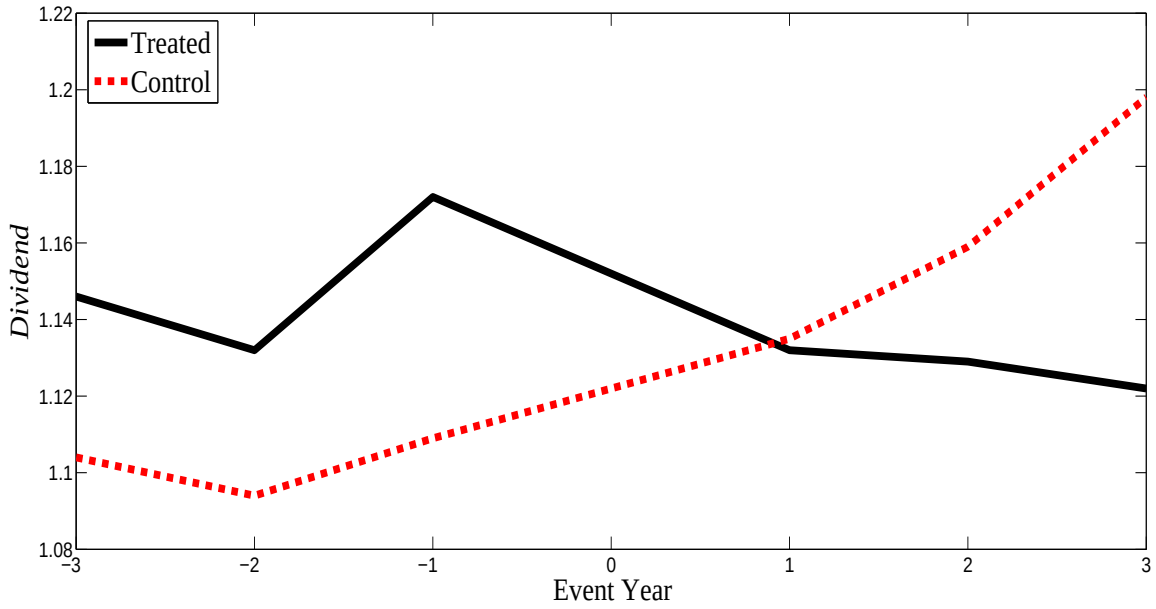
Panel B: Match with the Same Lender

	Dividend		*Payout*	
	(1)	(2)	(3)	(4)
Treat × *Post*	-0.069**	-0.064**	-0.228*	-0.237**
	(0.030)	(0.030)	(0.125)	(0.110)
Log Assets		0.129***		0.726***
		(0.036)		(0.133)
Tobin's Q		-0.080***		-0.246***
		(0.012)		(0.055)
Cash		0.195		3.313***
		(0.167)		(0.576)
Leverage		-0.678***		-6.476***
		(0.132)		(0.508)
Tangibility		-0.247		-2.089***
		(0.234)		(0.636)
Sale Growth		-0.040***		-0.204***
		(0.011)		(0.051)
Age		-0.004		0.040
		(0.024)		(0.037)
Constant	1.037*	0.795	0.447	-1.074
	(0.627)	(0.736)	(1.028)	(1.165)
Year Fixed Effects	Yes	Yes	Yes	Yes
Merger-Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	37,403	37,403	37,403	37,403
Adjusted R-squared	0.700	0.703	0.295	0.318

Figure 1: Payout Surrounding the Mergers

This figure shows the evolution of payout policy of treated and control firms surrounding the mergers of lenders and institutional investors. Panel A reports the yearly average of *Dividend*, cash dividend divided by market value of common equity, and Panel B reports the yearly average of *Payout*, total payout divided by market value of common equity.

Panel A: *Dividend*



Panel B: *Payout*