

Monitoring by Equity and Debtholders

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Abstract

We investigate whether lender monitoring serves as a substitute for equity blockholder monitoring. While active equity blockholders engage in direct monitoring, passive equity blockholders (PEBs) do not. Because private lenders are well positioned to serve as effective monitoring agents, we posit that their presence will attract passive blockholders who can rely on lender monitoring efforts. Using syndicated loans to capture firms' exposure to lender monitoring, we find that the presence of syndicated loans is positively associated with passive blockholder interest in the cross-section. We also find that the issuance of new loans is followed by increases in passive blockholders. Consistent with our conjectures, we show that the extent of association between loans and passive blockholders is increasing in the monitoring incentives and capabilities of lenders and decreasing in the agency conflicts between lenders and equity holders. Overall, we show that equity blockholders rely on active lenders for their monitoring needs.

Keywords: Corporate Governance, Equity Blockholders, Lender Monitoring

JEL Codes: D22, D82, G21, G30, G32, G34

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1 Introduction

Monitoring is a fundamental construct in the efficient allocation of capital in developed markets, as it helps to alleviate costly contracting frictions that arise from the separation of ownership and control (Holmström 1979). However, monitoring is costly, and is accordingly often delegated to stakeholders that have both the incentives and means to do so effectively. By delegating monitoring, stakeholders can avoid costly duplication of effort (Diamond 1984). For example, lead arrangers of syndicated loans will leverage their access to private information and incentives arising from loss exposure to serve as delegated monitors for other participant lenders (Sufi 2007). Similarly, equity investors often defer to blockholders who hold sufficiently large stakes in a firm to motivate them to engage in effective monitoring (Shleifer and Vishny 1986). What is unclear, however, is the degree to which the monitoring efforts of lenders and equity blockholders are substitutes for one another. In this study, we examine whether equity blockholders rely on the monitoring efforts of lenders, and consequently whether exposure to lender monitoring affects the monitoring behavior of equity blockholders.

Prior research has shown that private (syndicated) lenders are uniquely positioned as effective monitoring agents (Leland and Pyle 1977; Fama 1985, 1990; Winton 1995). Such lenders are typically professionally qualified and well organized, monitor borrowers actively, and have informational advantages through access to private information. Consequently, less organized lenders, such as bondholders, rely on private lenders for their monitoring needs (Byers, Fields, and Fraser 2008; Ma, Stice, and Williams 2019). The delegation of monitoring among equity holders is also well established (Shleifer and Vishny 1986). Disparate small (atomistic) investors are unable to directly monitor managers, but equity blockholders, holding substantial stakes in the firm, often actively monitor managers and influence firm policies to the benefit of all shareholders (Bebchuk & Hirst, 2019; Brav et al., 2008). However, not all equity blockholders share the same monitoring style. While some adopt an active stake, whereby they directly monitor and exert control over managers, others adopt a passive stake with little monitoring and no exertion of control

(Bebchuk et al., 2017; Brav et al., 2008). This distinction has become increasingly relevant to understanding the role of equity blockholders in corporate governance as passive investing has grown in popularity in recent decades (Bebchuk et al., 2017; Bratten et al., 2020).

The dynamics of monitoring delegation among both lenders and shareholders invites the intriguing question of whether equity blockholders rely on the monitoring efforts of lenders, especially private lenders, as a substitute for their own monitoring efforts. If they do, then one should see that the exposure of a firm to lender monitoring will motivate equity blockholders to adopt passive rather than active stakes in the firm. By relying on lenders, these passive equity blockholders (henceforth PEBs) would avoid the costly duplication of monitoring efforts, and instead “free-ride” on the efforts of lenders. Two factors could negate this proposition. First, lenders and shareholders may not share similar monitoring objectives because of agency conflicts that exist between owners and lenders of a firm (Jensen and Meckling 1976; Myers 1977). If there is no incentive alignment between lenders and shareholders, then lender monitoring would be an imperfect substitute for equity blockholder monitoring. Second, it is possible that at least a subset of PEBs may directly monitor managers as documented by Appel et al. (2016). If PEBs indeed engage in direct monitoring, then there would be no need for them to depend on lender monitoring, and we would not observe a relation between lender monitoring and the monitoring efforts of equity blockholders. For these reasons this is an empirical question, which we investigate by examining whether firms’ exposure to lender monitoring is associated with a greater incidence of passive equity blockholder positions.

Our proxy for lender monitoring is syndicated loans and is predicated on a number of reasons. First, syndicated loans represent one of the most significant sources of debt financing for US firms, with outstanding loans amounting to over \$4 Trillion in 2016 (Herpfer 2021). Second, and more important, private syndicated lenders are well known for their active monitoring styles. Such lenders have routine access to private company information and are known to closely track, and even influence firms’ decision making (Ross 2010; Beatty, Liao, and Weber 2012; Gustafson, Ivanov, and Meisenzahl 2021). We gather

data on syndicated loans, including dates of initiation/termination, loan features, and lead arrangers from LoanConnector (formerly DealScan).

We obtain data on equity blockholder types from SEC's Schedule 13 filings. Under Section 12 of the Securities Exchange Act, the SEC requires all "beneficial" owners—defined as investors whose ownership exceeds 5% of a firm's total stock—to publicly file either under Schedule 13D (SC-13D), when they intend to adopt an active position in terms of influencing control over the issuer, or under Schedule 13G (SC-13G), when they wish to adopt a "passive" position with exercise of little or no control. This self-declared classification allows us to explicitly identify blockholders as either active or passive. Blockholders are required to file in a timely manner upon establishing their positions, as well as file periodic amendments as long as the position is held. Therefore, the SC-13 filing data allows us to directly observe the time period over which equity blockholder positions are held.

We begin our empirical analyses by examining the association between incidence of PEBs and syndicated loans in the cross-section. We classify firm-quarters into those with at least one outstanding syndicated loan at the end of the quarter, and those without any loans. About half our sample have loans. We also classify firm-quarters into those that have at least one passive equity block and those that do not. Around 80% of our sample has at least one passive block. Univariate results show that while 76% of firm-quarters without loans have passive blocks, this proportion increases to 85% for firm-quarters with loans. The difference of 9% is significant both statistically and economically. Multiple regression analysis with an appropriate set of control variables also shows that firm-quarters with loans have statistically and economically (above 5%) higher proportion of passive blocks. We extend our analysis by examining passive block counts, and find significantly higher counts per firm, on average, when there is a syndicated loan.

To draw sharper inferences regarding the influence of loans on passive blocks, we next conduct "changes" tests. Specifically, we identify firm-quarters in which a new syndicated loan has been issued and compare the incidence of new passive block filings over the ensuing year against that for firm-quarters in

which no new loans are issued. We find that firm-quarters with new loans have significantly higher probability of having at least one new passive block filing in the ensuing year than those that do not. We also find that there is a statistically significant increase in the average per-firm counts of new passive filings, as well as in the net change in such counts, over the year following a new loan initiation. Overall, both our cross-sectional and change analyses are consistent with our conjecture, and suggest that the presence of a syndicated loan is positively associated with the incidence of PEBs.

Next, we explore cross-sectional variation in our results. First, we consider heterogeneity in loan-specific features which affect the degree to which lenders are incentivized to engage in monitoring. We examine the effect of these loan features on the positive relation between loans and passive blocks. At the outset we find that the strength of this relation depends significantly on the relative size of the loan—loans that are large in comparison to the firms' assets are more likely to attract passive blocks. Next, we find that the existence of several loan features such as collateral, performance pricing provisions, and performance-based covenants, as well as the tightness of those covenants, accentuate this primary relation. Overall, these findings suggest that the positive relation between loans and passive blocks is driven by various loan features that signal the strength and quality of the lender monitoring.

Second, we examine variation in our results related to the quality of lender monitoring to which borrowers are exposed. We conjecture that the strength of the observed relationship between PEB interest and syndicated loan exposure should increase (decrease) when the issuing lenders engage in higher (lower) quality monitoring. Using measures including the relative concentration of assets in lending, the quality of the lending portfolio, relationship banking, and information advantages from geographical proximity or industry specialization, we find results consistent with our predictions. Because lender characteristics can affect passive block holder interest only through the presence of a loan, finding predictable variation related to lender quality increases the confidence in our primary inference, that PEBs rely on lenders for their monitoring needs.

Third, we examine borrower attributes that are likely to influence the relative value of lender monitoring to PEBs. The value of lender monitoring would be lower either when there are alternative external monitoring mechanisms or when there is less need to monitor because manager-owner agency conflicts are less severe in the firm. In terms of alternative monitoring mechanisms, we examine the presence of active equity blockholders—who are known to actively monitor and influence managers—and financial analyst coverage which is a proxy for monitoring by capital markets. We find that the presence of these monitoring mechanisms significantly attenuates the positive loan-PEB relation. To empirically identify firms with lower manager-owner agency conflicts we examine the quality of corporate governance within the firm. We examine corporate governance features in the firm (or the state of incorporation) relating to shareholder rights as well director independence and expertise. Across these varied proxies, we find consistent evidence that better corporate governance quality does lower the positive influence of syndicated loans on the incidence of PEBs.

Our final set of analyses is concerned with the owner-lender agency problem. Recall that this agency problem causes divergence in shareholder and debtholders interests, which in turn reduces the extent to which equity blockholders can rely on lender monitoring. Therefore, we conjecture that the positive loan-PEB relation will be attenuated in circumstances with high agency costs of debt when shareholder and debtholders interests can significantly diverge. From past research, we note that agency costs of debt will be higher both when firms are financial distressed (Almeida and Philippon 2007) or face high growth opportunities (Becker & Strömberg, 2012). Using several proxies for both financial distress and high growth opportunities, we find that the positive relation between loans and PEBs is significantly attenuated (and not even present) when firms are either financially distressed or in high growth states. These results suggest that equity blockholders are more likely to defer to lender monitoring when there is greater incentive alignment between lenders' and shareholders' interests (i.e. lower debt-equity conflicts).

Our primary contribution is to show that equity blockholders rely on active lenders for their monitoring needs. While prior literature has examined delegated monitoring within both the debt and the equity spheres, our study is arguably the first to show that there is a substitution between lender and equity monitoring. By showing this, we add to both the equity blockholder and the debt contracting literatures. First, while there is a fairly robust literature on equity blockholders, much of the emphasis is on activist investors. Passive block filings are typically regarded merely as default options. Our results suggest that this may not always be the case, and that the presence of active syndicated lenders attracts PEBs who defer their monitoring needs to these lenders. Second, while there is a large debt contracting literature, only a subset of this literature has examined the interface of debtholders and equity holders. Even this subset has focused on the adversarial nature of this relation and the agency problem between debtholders and shareholders. In contrast, we suggest that there is also a more fundamental agency problem in the firm between managers and capital providers, and because of this, both lenders and shareholders can benefit from each other's monitoring efforts.

2 Data & Empirical Measures

2.1. Equity Blockholders

2.1.1 Identifying and Classifying Equity Blockholder Types

To identify and classify equity blockholder positions, we rely on SEC SC-13 filing requirements. The SEC requires blockholders—defined as equity stakeholders with a greater than 5% ownership of outstanding shares of a company—to regularly file their position via Schedule 13 forms (hereafter referred to as SC-13). These filing requirements, however, differ contingent on the nature of the blockholder's ownership. More specifically, the SEC imposes different filings requirements on blockholders that depend on the degree to which the blockholder plans to affect management decisions. Blockholders with the intention of engaging in stewardship and monitoring activities are classified as “active” and are required to

file a long-form version of an SC-13 filing known as an SC-13D. Alternatively, a blockholder may elect to adopt a “passive” blockholder stake in which they do not directly engage in stewardship or monitoring activities. Passive blockholders are required to file a short-form version of an SC-13 filing known as an SC-13G. The filing requirements for an active position relative to a passive position (SC-13D relative to an SC-13G) are far more substantial both in terms of the frequency of filings as well as the extent of disclosure. As such, equity blockholders are only incentivized to file as active blockholders insofar as they plan to engage in monitoring and stewardship (Giglia 2016; Morley 2019; Lund 2020).¹

We collect SC-13 filings from SEC EDGAR building on a methodology developed by Schwartz-Ziv and Volkova (2023). For each filing during our sample period, we are able to identify the filing blockholder as well as the issuing firm (sometimes referred to as the subject of the block), the classification of the position based on the type of SC-13 form filed, and other key features, including the size of the block as a percentage of outstanding shares and whether the filing relates to a newly established or existing blockholder position.

Equity blockholders file two different types of SC-13 forms for each position: an initial filing (in which a new blockholder position is established), and an amendment filing. New filings must be reported within 10 days of surpassing the 5% threshold, although exemptions are made for specific investors. Amendment filings are required under several circumstances depending on the classification of the blockholder position (active or passive). However, regardless of classification, blockholders are required to file an amendment at least once per calendar year following any change in their position, or otherwise file stating that their position remained unchanged. In effect, once a blockholder position is established, the vast majority of blockholders will file an amendment at minimum once per calendar year up to the termination

¹ Although SEC rules do not actively prohibit passive blockholders from engaging in stewardship or monitoring activities, blockholders are required to file an amendment of their position reclassifying their ownership as active. We observe a small number of these “transitional” filings in our sample. We similarly observe blockholders who switch from active to passive, though these make up less than 1% of the filings we examine.

of their position. Moreover, because the termination of their position (equity stake falling below the 5% filing threshold) constitutes a change in position, blockholders are required to file this as an amendment as well. However, our examination of the data provides direct evidence that this is not strictly adhered to. As such, not all blockholder positions are associated with a termination filing.

In order to map an equity blockholder position to a firm at a given point in time, we need to determine the period for which that position is outstanding. For each filing, we take the filing date as the starting point of that position. This introduces some degree of measurement error for new filings, as certain filers (e.g. those deemed exempt pursuant to SEC reporting requirements) may file well after their ownership position passed the 5% threshold for filing. However, because this is not readily determinable from the underlying data, we elect to take the conservative approach of defining the start date of the position as the filing date. For amendments, this is less of an issue given the reporting requirements described above. However, determining the end date of a given position is more complicated.

When a blockholder files an amendment to an existing position, we can take the date of that amendment as the end date of the previous position. We know there to be a preexisting position at the date of amendment, as the absence of such would require a new filing rather than an amendment. Although filing requirements suggest that the vast majority of blockholders should issue annual amendments to update the status of their position, we note that this is not strictly adhered to in all cases, as evidenced by a nontrivial number of amendments filed greater than one year after the most recent filing of that position. In those cases, we continue to take the start date of the amendment as the end date of the previous position.

In the event that a blockholder divests their position (their ownership falls at least below the 5% filing threshold), they are required to file an amendment reporting the change in their position. We term these filings “Termination Filings” and take the filing date thereof as the end date of the preceding position. However, our investigation of the data shows that this requirement is often not adhered to. In the absence of a termination filing, we impute an end date of the last position filed as 12 months following that last

filing. This effectively imposes the assumption that the blockholder in question divests their position one year after their last filing in the absence of any subsequent filings.²

This allows us to determine, for all filings in our sample, the period for which that blockholder position is outstanding. We define a firm as being the subject of an outstanding blockholder position for the period spanning from the initiation of the position to its imputed end date (amendment or termination). In our empirical tests we measure passive blockholder positions either as (a) the presence/absence of at least one passive blockholder position during a firm-quarter; and (b) the number (count) of passive blockholder positions during a firm-quarter.

2.1.2 Do Passive Blockholders Actively Monitor?

We classify blockholders into active and passive from the SC-13D and SC-13G filings directly. These classifications are self-declared by the filing party and, given limited verification requirements or oversight, are subject to errors. At the outset, there is measurement error arising from misclassified filers. Whether deliberate or incidental, blockholders that incorrectly file as passive and/or active may undermine the accuracy of our empirical approach. Giglia (2016) provides some evidence to suggest that active filers will sometimes deliberately misfile as passive, but these are found to be relatively rare occurrences (less than 2% of passive filers).

More important, passive blockholders may engage in at least some degree of active monitoring. Appel et al. (2016) document that higher holding by passive institutional investors, an important subset of passive filers, leads to improved corporate governance, such as increases in independent directors, removal of takeover defenses, and more equal voting rights. The authors interpret their results as evidence that passive institutional investors engage in some degree of active monitoring. However, Appel et al. (2016) note that

² We note in our inspection of our sample that there are a nontrivial number of instances in which the time elapsed between amendment filings of a given blockholder position exceeds 12 months. While this would suggest that a longer time horizon may be more appropriate in some cases when imputing termination dates, we cannot be certain given the absence of a defined termination filing in many cases. As such, we adopt a 12 month window as a conservative estimate. We acknowledge, however, that our approach imposes a certain degree of measurement error. We notably find that our primary findings are robust to extending this to a 24 month window as in Schwartz-Ziv & Volkova (2023).

such investors primarily restrict their monitoring efforts to those that are fairly costless, such as voting on generic policies using predetermined criteria, rather than more firm-specific matters such as executive compensation. Building on Appel et al. (2016), Schmidt & Fahlenbrach (2017) find that increases in passive institutional investor ownership increases agency costs, as evidenced by CEO title-gathering, fewer appointments of independent directors, and worse merger and acquisition performance. The authors suggest that passive institutional investors abstain from engaging in active monitoring when it is costly, even when doing so is detrimental to firm-value. In another related study, Appel et al. (2019) find that, while passive institutional investor ownership does not affect which firms are targeted by activist investors, their presence encourages more aggressive activist campaigns, suggesting that passive institutional investors defer monitoring efforts to active investors. Therefore, indexer passive institutional investors appear to indirectly affect monitoring by equity blockholders.

While there is evidence that a class of passive blockholders, i.e., passive institutional investors, may be involved in direct monitoring, we do not believe that this issue will bias our findings in a material manner for the following reasons. First, the evidence regarding monitoring by passive institutional investors is weak and mixed, with findings limited strictly to low-cost examples of monitoring. Second, passive institutional investors are predominantly indexers such as Vanguard, BlackRock, and State Street. As we discuss in Section 2.3, we exclude indexers from our sample. Therefore, our results are unlikely affected by the behavior of this class of investors. Finally, we note that to the extent to which passive blockholders directly monitor managers, they are less likely to rely on lenders for their monitoring needs. This would reduce the power of our tests to detect effects of lender monitoring on passive blockholders behavior.

2.2 Syndicated Loan Lead Arrangers as Monitoring Lenders

We operationalize the construct of lender monitoring through the presence of syndicated loans on the firms' balance sheet. Syndicated loans are a leading source of capital in the US, and constitute the primary channel of private lending available to firms (Herpfer 2021). As of 2016, outstanding syndicated

loans in the US alone accounted for more than \$4 Trillion USD in invested capital. Thus, by focusing on syndicated loans, we are able to capture the vast majority of US firms' exposure to private lenders.

Each syndicated loan could involve multiple lenders contributing capital to a borrower. These lenders can be broadly categorized as either lead arrangers or participant lenders (Sufi 2007). Lead arrangers are typically banks with distinct informational advantages over other participant lenders, who have the responsibility of screening and monitoring borrowers on behalf of other members of the syndicate (Sufi 2007; Gustafson, Ivanov, and Meisenzahl 2021; Herpfer 2021). As such, the monitoring efforts of loan syndicate lead arrangers are a principal source of lender monitoring to which firms are exposed.

Syndicated loans and lead arranger data are collected from LoanConnector. These loans are often structured such that a given package/deal is comprised of multiple individual loan facilities/tranches. Lead arrangers of syndicated loans are identified at the package/deal level, while features of those loans, including specific monitoring provisions, are inferred from the largest facility/tranche in the package/deal. We define a firm as being exposed to the monitoring efforts of a lead arranger for the period spanning from the initiation of the syndicated loan to its subsequent maturity.

Finally, we explore variation both in the features of loans and the quality of lenders serving as lead-arrangers in some of our additional analyses. While our primary proxy for lender monitoring is the presence of a syndicated loan on the borrower's balance sheet, these additional measures allow us to capture cross sectional variation in the degree to which lenders are incentivized to engage in monitoring (loan features), and the relative quality/effectiveness of those monitoring efforts (lender attributes).

2.3 Sample Construction

Our sample is defined using firm-quarter observational units for publicly traded US firms obtained from Compustat. We rely on the primary market for syndicated loans to capture firms' exposure to lender monitoring with data obtained from LoanConnector (formerly known as DealScan). Equity blockholder

positions and classifications are derived from SC-13 filings obtained directly from SEC EDGAR. See Appendix A for variable definitions and data sources.

Our sample comprises all US publicly listed firms with quarterly fundamentals data available on Compustat from the period 1998 to 2020.³ From this selection of firms, we exclude those with important missing data points, including sales, total assets, net income, and market value of equity. We also exclude all financial firms (SIC Codes 6000-6999), as traditional lender monitoring does not apply to them in a conventional sense. From LoanConnector and SEC EDGAR, we extract all syndicated loans and blockholder position filings, respectively, that are outstanding for firm-quarters in our sample. We then match these loans and blockholder positions to each firm-quarter observation. We have 283,645 firm-quarters (7,558 unique firms) for which we have blockholder details. This is our final sample. Table 1 provides the details of our sample selection process across our three primary datasets.

A fairly large proportion of passive blockholders happen to be index investors (or “indexers”). These are large financial institutions which hold equity stakes in all firms within an index in order to package securities (typically ETFs) tied to the performance of a stock index, such as the S&P 500. We identify the three largest indexer firms—*BlackRock*, *StateStreet*, and *Vanguard*—and remove their SC-13 filings from our sample of passive index filings. While the elimination of indexers does not change the number of firm-quarters in our sample, it does affect the measurement of passive blockholder during a firm-quarter.

³ We defined our sample period to ensure we included sufficient data to account for possible time trends in our posited relationship. Prior research has examined these trends, and shown an overall increase in the concentration of equity ownership over the last several years (Holderness 2010; Appel, Gormley, and Keim 2016; Strampelli 2018; Shy and Stenbacka 2020). By implementing a large sample that extends back to 1998, we can be reasonably certain that our findings are robust both to short-term and long-term time trend effects.

3. Primary Results

We posit that firms with outstanding syndicated loans are subject to lender monitoring. If such lender monitoring is indeed a substitute for monitoring by equity blockholders, we expect PEB positions to be positively associated with the presence of syndicated loans. In this section, we report results of empirical tests of our primary predictions. Section 3.1 discusses cross-sectional tests of this association, i.e. whether firms with outstanding syndicated loans are more likely to have PEBs positions. Section 3.2 discusses tests that examine whether the issuance of a new syndicated loan is associated with a subsequent increase in new PEB positions in that firm.

3.1 Levels Analysis

We first conduct a purely cross-sectional test of our prediction. That is, we examine whether firm-quarters with an outstanding syndicated loan are associated with greater incidence of PEB positions. We begin with univariate analyses at the firm-quarter level. We capture exposure to lender monitoring with the *LOAN INDICATOR* binary measure, which takes a value of 1 for firm-quarters with at least one outstanding syndicated loan as of the quarter end (and 0 otherwise). Similarly, we capture the presence of a PEB with the *PASSIVE OWNERSHIP* binary measure, which takes a value of 1 for firm-quarters with at least one outstanding PEB position as of the quarter end (and 0 otherwise). Using these measures, we organize our data in a two-by-two matrix as shown in Panel A of Table 3. We are interested in the relative percentage of firm-quarters with PEB ownership between firm-quarters with and without exposure to lender monitoring. Our univariate analysis shows that roughly 49.1% of our sample firm-quarters have at least one outstanding syndicated loan, while the remaining 50.9% do not. Of those firm-quarters with no outstanding syndicated loans, 76.34% have at least one outstanding PEB position. However, this proportion increases to 84.94% for firm-quarters with outstanding syndicated loans. The difference in proportions of 8.6% is statistically significant, providing preliminary evidence that firms with exposure to lender monitoring are more likely to have concurrent PEBs.

We extend this analysis in Panel B of Table 3 by replacing the binary measure of *PASSIVE OWNERSHIP* with a count of the number of unique PEB positions outstanding as of each firm-quarter end. On average we find that there are slightly more than two passive blockholders per firm-quarter. Firm-quarters without outstanding syndicated loans (*LOAN INDICATOR* = 0) have an average of 2.17 PEBs, while firms with outstanding syndicated loans (*LOAN INDICATOR* = 1) have an average of 2.37. This difference of 0.20 passive blockholders is again statistically significant, providing additional evidence that the presence of PEBs is increasing in the presence of lender monitoring. In summary, the univariate results suggest that firms-quarters with a syndicated loan have statistically and economically (about 10%) significant higher incidence of passive blockholders, which is consistent with our conjecture.

To control for covariates that may simultaneously determine exposure to lender monitoring and PEB interest, we next estimate multiple regressions that include various control variables derived from prior literature. We examine several different specifications including Logit, and Poisson regressions, estimated both in pooled form and separately by quarter (Fama-MacBeth). For all specifications, we estimate the following model:

$$\begin{aligned}
\text{Passive Ownership}_{i,t} = & \beta_0 + \beta_1 \text{Loan Indicator}_{i,t} + \beta_2 \log(\text{Market Value})_{i,t} \\
& + \beta_3 \text{Tobin's } Q_{i,t} + \beta_4 \text{Sales Growth}_{i,t} + \beta_5 \text{ROA}_{i,t} \\
& + \beta_6 \text{Leverage Ratio}_{i,t} + \beta_7 \text{Amihud}_{i,t} + \beta_8 \log(\text{Firm Age})_{i,t} \\
& + \text{Fixed Effects} + \epsilon
\end{aligned} \tag{1}$$

where *LOAN INDICATOR* and *PASSIVE OWNERSHIP* are defined as earlier. All control variables are measured for firm *i* as of the end of quarter *t*. $\log(\text{MARKETVALUE})$, defined as the log of firm *i*'s market value of equity, captures firm size and is included as passive blockholder interest is more prevalent among larger firms (Holderness 2016a, 2016b). *TOBIN'S Q* captures firms' relative valuation, and is expected to be negatively associated with PEB interest (Lins 2003; Edmans and Holderness 2017). Firm growth is captured by *SALES GROWTH*, while *ROA* captures firm profitability. *LEVERAGE RATIO*, although related to our measure of lender monitoring, captures all sources of debt, which have been shown to be negatively

associated with PEB interest (Klein and Zur 2011; Edmans and Holderness 2017). We include *AMIHUD* as a measure of firms' illiquidity (Amihud 2002), as prior research shows that higher levels of illiquidity are associated with reduced equity blockholder interest (Edmans, Fang, and Zur 2013). Lastly, firm-age is included as the presence of equity blockholders is lower for younger firms (Edmans and Holderness 2017). Additional details regarding the measurement of these control variables are provided in Appendix A. Descriptive statistics of these measures for our sample of firm-quarter observations are reported in Table 2.

We first examine regressions where the dependent variable is the binary version of *PASSIVE OWNERSHIP*. The results of our analysis are presented in Columns (1) and (2) of Table 4, and are estimated using a logistic specification. However, we include discussion of OLS estimates (untabulated) to facilitate easier interpretation of coefficient values and the magnitude of economic significance.

Column (1) is estimated using a pooled specification. While we include time fixed-effects at the quarterly level, we exclude firm fixed effects. This is because of the lack of variation in our explanatory variable (presence of syndicated loan) within firms. Including firm fixed-effects when there is no within-group variation in an explanatory variable will mean that those groups (firms) are not factored into estimates of that coefficient (deHaan 2021). In effect, this washes away the exact type of cross-sectional variation that we are looking to explore in our test. As such, we elect to exclude firm-fixed effects in our analysis.⁴

Column (2) is estimated using a Fama-Macbeth two-stage specification (Fama and MacBeth 1973). This involves first estimating our model for each year-quarter (*t*) in our sample, and subsequently calculating the mean and standard errors of the estimated coefficients. The Fama-Macbeth approach, relative to the pooled specification, helps to account for heteroscedasticity and residual-dependence by estimating each time period independent of one another. The aggregation of strictly cross-sectional

⁴ As part of untabulated tests, we replicate our primary analyses with the inclusion of firm-level fixed effects. We find that while the level of statistical significance is affected in some specifications (specifically those reported in Table 4), our inferences are qualitatively unchanged. We additionally find that a likely factor in our weaker statistic significance is the lack of within-group (firm) variation in our RHS variable of interest (*Loan Indicator*), which severely restricts the statistical power of our tests.

estimates means that the standard errors are estimated without the bias that would otherwise have been imparted.

Across all specifications, we find that the presence of an outstanding syndicated loan is positively associated with the presence of PEBs. This is shown by the significant and positive coefficients on our *LOAN INDICATOR* measure for both columns and is consistent with our prediction that PEB interest is increasing in exposure to lender monitoring. Moreover, we find that this association is economically significant. For example, in our untabulated OLS specifications we observe that firms with outstanding syndicated loans are 5.5% to 6.2% more likely to have concurrent PEBs, which is comparable to the 8% effect in our univariate analysis.⁵ Our logistic specifications show this effect to be about a 50% increase in the odds-ratio.⁶

In addition to these findings, we note that our control variables load consistent with both our predictions and the findings of prior literature. While firm size is positively associated with PEB interest, we see a significant negative association for Tobin's Q, sales growth, leverage ratio, illiquidity, and firm age (Edmans, Fang, and Zur 2013; Edmans and Holderness 2017). These results are not only consistent across specifications, but provide additional context for the economic magnitude of our findings. For instance, we see that the coefficient on *LOAN INDICATOR* is consistently several times the size of that on firm size or illiquidity – both determinants that have been explored in prior literature (Edmans and Holderness 2017).

⁵ We note that linear interpretations of OLS regressions in the case of a binary dependent variable are subject to potential bias (Horrace and Oaxaca 2006). However, we include these results to facilitate interpretation of our findings. Concerns regarding the severity of any such bias are mitigated given the consistency of the results across specifications, including logistic regressions which are suited to non-linear relationships with binary dependent variables.

⁶ The economic interpretation of logistic regression coefficients is contingent on the fact that the effective dependent variable is the log of the odds-ratio for the binary dependent variable. Therefore, we can interpret the magnitude of the coefficient by raising the exponential constant to the power of said coefficient, giving a percentage measure of the change in the odds ratio associated with a change in the explanatory variable of interest. For example, interpreting the coefficient on *LOAN INDICATOR* in Column 2 of Table 4, we get $e^{0.440} = 1.55$, or a 55% increase in the odds ratio of an outstanding PEB given the presence of an outstanding syndicated loan.

Next, we extend our analyses to regressions where *PASSIVE OWNERSHIP* is measured as the count of PEBs per firm-quarter. We use the same model described in Equation 1. Because our dependent variable is now a count measure (i.e. strictly non-negative discrete variable with a cardinal interpretation) rather than a binary variable, we replace our logistic specification with a Poisson estimation.⁷ Results of this analysis, shown in Columns (3) and (4) of Table 4, provide evidence of a statistically and economically significant positive association between the presence of an outstanding syndicated loan and the number of PEBs. Specifically, our Poisson results show roughly a 10% relative increase in the number of outstanding PEB positions in the presence of outstanding syndicated loans.⁸ This is consistent with the results of untabulated OLS estimates which suggest that exposure to lender monitoring is associated with about an additional 0.2 PEB positions.⁹ We also continue to observe control coefficient signs that are consistent with those reported in Table 3.

Together, the univariate and regression results reported in Tables 3 and 4 provide support for statistically and economically significant positive association between the presence of syndicated loans and the incidence of PEB interest. This association, albeit in the cross-section, provides support for our hypothesis that firms' exposure to lender monitoring leads to more passive equity investments by blockholders.

⁷ OLS imposes important assumptions on the structure of the dependent variable which are violated when that variable is a count measure, and as such is both non-continuous (discrete) and strictly non-negative (truncated at 0). To that end, we use a poisson model, which is correctly suited to models in which the dependent variable exhibits these features (Rock, Sedo, and Willenborg 2000).

⁸ Poisson specifications estimate the log of a count measure as the dependent variable dependent on explanatory covariates. Therefore, the interpretation of a poisson estimated coefficient is the marginal increase in the log value of the predicted count. In Columns 3 and 4 of Table 5, we observe a coefficient on LOAN INDICATOR of approximately 0.095. To reverse out the logarithmic interpretation, we raise the exponential constant by this coefficient, giving us $e^{0.095}$, or 1.1. Thus, we observe a 0.1 (10% increase) in the predicted count of PEB positions in the presence of lender monitoring. Given the average count of just over 2 outstanding positions on average (per Panel B of Table 3), we can infer similar economic magnitude to our OLS results – $10\% \times 2 = 0.2$. This provides us with reasonable certainty of our interpretation of the economic magnitude of our findings across specifications.

⁹ Similar to the caveat of interpreting OLS coefficients given a binary dependent variable, we also acknowledge that count dependent variables, by virtue of being both non-continuous and strictly non-negative, are poorly suited to linear specifications. However, we once again include these specifications in our analyses to facilitate interpretability of economic magnitudes.

3.2 Change Analysis

We extend our cross-sectional “levels” analysis to a “changes” analysis, wherein we examine whether firms that take on an additional syndicated loan subsequently experience an increase in the incidence of passive blockholders. Taking on a new syndicated loan may expose the borrower to a new lead arranger, or increase the stake of an existing lead arranger, and will therefore invariably lead to an increase in the borrowing firm’s exposure to lender monitoring. If, as we hypothesize, lender monitoring is a substitute for equity blockholder monitoring, the increased lender monitoring after a new syndicated loan should result in greater PEB interest in the period following the issuance of that loan. Examining PEB changes following increased lender monitoring exposure is in the spirit of Granger causality (Granger 1969), and therefore allows us to draw sharper inferences regarding whether lender monitoring affects equity blockholder behavior.

To this end, we identify firm-quarters in which a new syndicated loan is initiated and then compare changes in PEB interest over the subsequent year with those firm-quarters that do not have new syndicated loans. Specifically, for each firm-quarter t in our sample, our explanatory variable, *NEW LOAN INDICATOR*, is an indicator variable that takes a value of 1 for firm-quarters in which a new syndicated loan has been issued (and 0 otherwise). To capture subsequent changes in PEB interest, we define a four-quarter period beginning at the start of the quarter t and extending to the end of quarter $t+3$, and initially define *NEW PASSIVE BLOCK* as an indicator variable with a value of 1 if at least one new PEB position is established within that window (0 otherwise).¹⁰ We use a four-quarter window for a number of reasons. First, equity blockholder positions can take time to establish, as investors often amass holdings over several transactions. Secondly, because not all equity blockholders are required to file new positions immediately, we use an extended window to ensure we capture filings that relate to positions established following the

¹⁰ We define a passive blockholder position as “new” on the date it is first filed with the SEC. Subsequent filings related to the same position are filed separately as amendments, allowing us to distinguish between filings related to newly established positions relative to existing positions.

quarter of interest. Our window starts from the beginning of the quarter of interest because the loan could be taken anytime during the quarter.¹¹

We begin with univariate analysis. Panel A of Table 5 reports a two-by-two matrix of our sample along our two measures of interest, and shows that only 8% of firm-quarters have newly issued syndicated loans. However, of those firm-quarters, 57.72% are followed by at least one new PEB position in the subsequent period, compared to 54.22% for firm-quarters that did not have a newly issued syndicated loan. This difference of 3.5% is significantly different, suggesting that firm-quarters in which lender monitoring exposure increases are more likely to be followed by an increase in PEB interest.

Similar to our levels analysis in the previous subsection, we also report alternative univariate statistics in which we measure the average number of new PEB positions established in the window. Panel B of Table 5 shows that firm-quarters with newly issued syndicated loans have, on average, 1.09 new PEBs establish positions in the window, compared to 1.02 for firm-quarters without newly issued syndicated loans. This difference of 0.07 is also statistically significant.

Finally, we report an alternative measure of PEB positions in Panel C of Table 5. For each firm-quarter observation, we calculate the net change in outstanding PEB positions from the beginning of quarter t to the end of $t+3$. Our results show that firm-quarters in which a new syndicated loan is issued exhibit a net change in PEB of 0.07, while firm-quarters with no new syndicated loans average a net change of 0.03, and the difference is statistically significant. These numbers suggest that, for the average firm, there is not much change in the number of passive blockholder positions within a year. However, on a relative basis, the effect of a new loan is economically very significant—firm-quarters with new loans experience more than twice the increase in net PEB positions in the subsequent period than those for which there is no new loans.

¹¹ We note that our findings are robust to moving the window to start at the end of the quarter in question, as well as varying the length of the window to either three or five quarters.

We next discuss regression results with controls for covariates. Using the same suite of controls, we modify the model described in Equation 1 for our revised specification:

$$\begin{aligned}
 \text{New Passive Block}_{i,t} = & \beta_0 + \beta_1 \text{New Loan Indicator}_{i,t} \\
 & + \beta_2 \log(\text{Market Value})_{i,t} + \beta_3 \text{Tobin's } Q_{i,t} \\
 & + \beta_4 \text{Sales Growth}_{i,t} + \beta_5 \text{ROA}_{i,t} + \beta_6 \text{Leverage Ratio}_{i,t} \\
 & + \beta_7 \text{Amihud}_{i,t} + \beta_8 \log(\text{Firm Age})_{i,t} \\
 & + \beta_9 \text{Preceding Ownership}_{i,t} + \text{Fixed Effects} + \epsilon
 \end{aligned} \tag{2}$$

where *NEW LOAN INDICATOR* and *NEW PASSIVE BLOCK* are defined as earlier. Consistent with our predictions and univariate results, we expect a positive and significant β_1 coefficient. We note the inclusion of an additional covariate, capturing the presence of PEB position as of the end of quarter t-1. Following prior literature, we predict a positive and significant β_9 coefficient, as PEB interest is increasing in the presence of existing PEBs.

The results of our analysis are presented in Table 6. As with the structure of Table 4, Columns (1) and (2) are estimated with a binary dependent variable (*NEW PASSIVE BLOCK INDICATOR*) using a logistic specification, while Columns (3) and (4) are estimated with a count dependent variable (*NEW PASSIVE BLOCK COUNT*) using a Poisson specification. Once again, Columns (1) and (3) report pooled specifications, while Columns (2) and (4) report Fama-Macbeth two-stage specifications.

Across Columns 1-4 in Table 6, we again find consistent results supporting our predictions. We observe a positive coefficient on our explanatory variable of interest for all columns for both pooled and Fama-Macbeth estimates using either a binary or count measure dependent variable. Importantly, these estimates are both statistically and economically significant—our results suggest firms which receive a new syndicated loan exhibit a 5% increase in the odds ratio of a new PEB position being subsequently established (logistic regression). Untabulated OLS results suggest that firms with new syndicated loans experience roughly 1% increase in the likelihood of new passive blockholder positions during the subsequent year compared to those without new loans. Similarly, our Poisson estimates suggest that, on

average, upon receiving a newly issued syndicated loan, firms will see an additional 0.03 increase in new PEBs in the following year.

One important consideration is that, while new PEB positions can be established during the period following the issuance of a new loan, so too can existing PEB positions be terminated. To account for this, we include results using an alternative definition of both the binary and count measure of new PEBs in Columns 5-8 of Table 6. In Columns (5) and (6), we replace the standard indicator for a new PEB filing with an indicator set to 1 if there is a *net* increase in PEBs from the start of the firm-quarter t to the end of firm-quarter $t+3$ (*NET PASSIVE BLOCKHOLDER INDICATOR*). Similarly, in Columns (7) and (8), we use this net change as the dependent variable (*NET PASSIVE BLOCKHOLDER COUNT*).¹² Our findings are again consistent across these models in both pooled and Fama-Macbeth specifications. As also shown in the univariate analyses, these results suggest that firms receiving new syndicated loans, on average, experience more than double the growth in net PEB positions as firms that do not receive new syndicated loans. Said differently, after accounting for terminated passive blockholder positions, we find that the issuance of a new syndicated loan is associated with a 100% increase in PEB positions in the subsequent year.

Taken together, the results reported in Table 6 complement our levels analysis by providing robust evidence that PEB interest increases after the initiation of a new syndicated loan. For all specifications discussed, we find that this relationship is not only statistically significant, but economically meaningful as well. Overall, our results are consistent with our predictions and suggest that changes to lender monitoring exposure are significantly associated with changes to PEB ownership.

¹² Although this new variable definition is related to the count measure used in Columns (3) and (4) of Table 6, it can crucially take on negative values if the number of PEBs at the end of the time horizon ($t+3$) is less than that at the start of the time horizon (t). As such, this measure does not meet the strictly non-negative definition required for a count model using a Poisson, and therefore we use OLS.

4 Cross Sectional Variation in Results

Thus far, we have shown a positive association between the presence of syndicated loans and the incidence of PEBs. Prima facie, this evidence is consistent with our prediction that lender monitoring is a substitute for equity blockholder monitoring. However, our analyses up to this point has limited the measurement of firms' lender-monitoring exposure to merely whether or not a syndicated loan is outstanding or issued. Exploring cross-sectional variation in the strength of the association between syndicated loans and PEB interest is useful for at least two reasons. First, such an exploration provides a more nuanced understanding of how PEBs respond to the presence of lender monitoring. Second, to the extent that such variation is consistent with predictions arising from our primary hypothesis, the cross-sectional results help validate our primary results and strengthen our inferences. In this section, we explore cross-sectional variation with respect to (1) loan features and lenders' monitoring incentives; (2) lender characteristics and lender monitoring efficacy; and (3) borrower attributes and the relative value of lender monitoring.

To explore the cross-sectional variation empirically, we augment our baseline specifications described in Equations (1) and (2) by including interactions between the existence of a loan and cross-sectional measures that act as moderators of the association between lender monitoring and PEB interest. Our models for the levels and changes specifications, respectively, are as follows:

$$\begin{aligned} PasBlock = & \beta_0 + \beta_1 LoanIndicator + \beta_2 Attribute \\ & + \beta_3 LoanIndicator \times Attribute \\ & + \Sigma \beta Controls + Fixed Effects + \epsilon \end{aligned} \quad (3)$$

$$\begin{aligned} NewPasBlock = & \beta_0 + \beta_1 NewLoanIndicator + \beta_2 Attribute \\ & + \beta_3 NewLoanIndicator \times Attribute \\ & + \Sigma \beta Controls + Fixed Effects + \epsilon \end{aligned} \quad (4)$$

Attribute represents the cross-sectional attribute that moderates the relation between syndicated loans and PEB incidence. For all specifications, we define the *Attribute* as a dichotomous variable representing a partition based on the underlying attribute. In the interest of brevity, we limit our reported results to those

of a pooled logistic specification.¹³ Our coefficient of interest is β_3 , which estimates the interaction between the lender monitoring (*LoanIndicator* or *NewLoanIndicator*) and the *Attribute*. We also examine the “linear combination” of $\beta_1 + \beta_3$, which measures the relationship between syndicated loans and PEBs for the subgroup where the respective *Attribute* switches on. In some tests we implement slight variations of the basic specification laid out in Equations 3 and 4. We detail these variations in the respective subsections.

4.1 Loan Features & Lender Monitoring Incentives

Prior literature shows that there is significant variation in the extent to which lenders are incentivized to engage in the monitoring of borrowers (Asquith, Beatty, and Weber 2005; Coleman, Esho, and Sharpe 2006; Sufi 2007; Bushman and Wittenberg-Moerman 2012; Gustafson, Ivanov, and Meisenzahl 2021). This variation in monitoring incentives is partially captured by specific features of/provisions in loan agreements. Accordingly, we examine how the positive association between syndicated loans and PEB interest varies with the inclusion of these features in the loan agreements.

We examine several loan features that prior literature has shown to be associated with lender monitoring incentives. First, we consider the size of syndicated loan relative to the borrowing firm’s assets. Lenders face greater incentives to monitor their borrowers when they have contributed a larger share of borrowers’ total capital. Also, such lenders will be more important capital providers for those borrowers and will therefore be able to monitor and influence borrower firms’ actions to a greater extent. For these reasons, loans that constitute a larger share of the borrower’s capital will have stronger lender monitoring, thereby possibly attracting PEBs.

In addition to the relative size of the loan, we consider how lender monitoring incentives vary with other key features of syndicated loan agreements. We begin by examining the distinction between secured versus unsecured loans. Secured loans constitute an attempt by the lender to safeguard their interests in the event of a default. However, what this means for the extent to which lenders will monitor the firm is more

¹³ Inferences are generally consistent across pooled OLS, Fama-Macbeth OLS, and Fama-Macbeth logistic specifications as well.

nebulous. On one hand Sufi (2007) finds that loan's secured with collateral have lower lead-arranger shares than those without. This is interpreted as collateral limiting the extent to which lead arrangers need to signal their commitment to monitoring. On the other hand, Cerqueiro, Ongena, and Roszbach (2016) show that lenders appear to respond to exogenous decreases in the value of collateral by attenuating their monitoring efforts, consistent with prior literature (Rajan and Winton 1995). The presence of collateral also signals the diligence of the lenders and therefore greater propensity for effective monitoring. On balance, we predict that the presence of collateral will strengthen the positive relationship between syndicated loans and PEB interest.

We then consider specific provisions that facilitate the transfer of control rights from borrowers to lenders on the basis of borrower performance. Performance-pricing provisions have been shown to be associated with increased lender monitoring (Asquith, Beatty, and Weber 2005). We therefore predict that loans which include these provisions are more likely to be associated with greater lender monitoring. Finally, we account for the role of covenants in lending arrangements. Prior literature has shown that covenants related to the performance of the borrower (herein "performance covenants") are associated with higher levels of lender monitoring (Christensen and Nikolaev 2012). Pursuant to this, we expect PEB interest to be more positively associated with loans that include performance covenants. We further explore this by considering the tightness of covenants using the measure provided by Demerjian & Owens (2015), as tighter covenants are likely associated with higher degrees of lender monitoring.

We capture relative loan size using the amount of the largest facility in each loan package scaled by the borrowing firm's total assets at the time the loan is initiated, and calculate an indicator for loans in the upper quartile of our sample distribution. For the remaining loan features, we define an indicator variable for each loan set equal to one if that loan is respectively (1) secured by some form of collateral; (2) includes a performance pricing provision or; (3) includes a performance covenant. We also include an additional measure of covenant tightness for the subsample of observations with available data. We define loans has

having high levels of covenant tightness (associated with higher lender monitoring incentives) when the probability of covenant violation falls in the upper-quartile of the sample distribution.¹⁴ Because there can be multiple loans outstanding at the end of each firm-quarter, we take the largest value of each of these measures. Thus, if for instance firm-quarter has at least one outstanding loan that is secured, our *SECURED INDICATOR* measure will be set equal to one for that firm-quarter.

Empirically, we implement the specifications in Equations 3 and 4 with one variation. Because loan characteristics do not exist for non-borrowing firms, we do not have an interaction term in the model. Instead, we estimate a nested model with main effects for presence of a loan and the loan characteristic. The coefficient on the loan characteristic measures the interactive effect. Results of our analyses examining these loan features are reported for both the levels and change specification in Panels A and B of Table 7, respectively. In Column (1), we show that the relationship between loans and PEB interest is significantly more positive when those loans are in the top quartile of their distribution, suggesting that firms that have relatively larger loans have significantly higher PEB interest. Columns (2), (3), and (4) include nested indicators for firm-quarters with at least one outstanding loan that is secured, has a performance pricing provision, or at least one performance covenant, respectively. In all three cases, we see a significantly positive coefficient on the nested measure, showing that when firms are exposed to loans which include features known to be associated with greater lender monitoring there is a stronger positive association with PEB interest than for firms with exposed to loans without those features. Lastly, in Column (5), we see that the nested measure for debt covenant tightness is positive and significant. This is consistent with PEBs responding more to loans with tighter covenants, and therefore presumably greater lender monitoring.

Importantly, our inferences are consistent in both the levels and change specification (Panels A and B respectively). Altogether, the findings reported in Table 7 provide evidence that the degree to which lender monitoring is positively associated with PEB interest varies with loan features that measure the extent of

¹⁴ Data on the probability of covenant violations for syndicated loans is provided by Demerjian & Owens, 2015.

lenders' monitoring incentives. This strengthens our inference that the findings we observe are driven by PEBs viewing lender monitoring as a substitute for their own monitoring efforts.

4.2 Lender Attributes & Perceived Monitoring Efficacy

Next, we examine whether our results vary with the perceived quality of the lenders' monitoring efforts. We expect PEBs to respond more (less) to firms' exposure to lender monitoring when the lending agent is likely to be more (less) effective in monitoring. Therefore, we consider cross-sectional variation in lender monitoring quality as an additional dimension along which to more closely examine our primary findings. The quality of lender monitoring is not directly associated with the borrowing firm's characteristics, i.e., lender attributes matter only through the presence of a loan from a particular lender. Accordingly, we believe that finding predictable variation in our results with respect to lender monitoring quality should mitigate concerns that our results are driven by some unobservable characteristic of the borrowing firm.¹⁵

We consider several lender attributes shown in prior literature to be associated with high/low quality monitoring. First, we consider the quality of a lender's portfolio as captured by loan loss provisions. High quality lenders are likely to have a lower proportion of non-performing loans in their portfolios, both because they screen more effectively when initiating loans and they monitor these loans more actively. Accordingly, our first measure of lender quality is an indicator variable for lenders with scaled loan loss provisions (total loan loss provisions as a percentage of total outstanding loans) in the upper-quartile of the sample distribution. Given that this captures lenders of lower quality, we predict a negative and significant interaction effect.

Second, we consider the relative importance of lending practices to the lender's operations (as opposed to investment banking or other related services). We pose that lenders with greater emphasis on

¹⁵ Of course, it is possible that lenders could choose borrowing firms, thus creating a self-selection problem. While we acknowledge this, we maintain that it is a less likely scenario. Also it is not clear whether lenders with greater monitoring quality would lend to firms with better governance, their relative advantage may be to lend to firms with inferior governance.

commercial loans are both better equipped and more incentivized to monitor their loans effectively, and will be more likely to invest in effective monitoring in order to protect their balance sheet. Accordingly, our second dimension of lender quality is lending intensity, which we measure as the percentage of loans in the lender's total assets. We expect greater PEB interest in firms with loans issued by lenders with lending intensity in the upper-quartile of the sample distribution.

Third, we explore potential information advantages enjoyed by lenders. We consider two types of informational advantages: (1) those based on geographical proximity (lenders in the same state as the borrower) and (2) those on industry specialization (lenders that specialize in the same industry as the borrower).¹⁶ Using an indicator variable for lenders for which these conditions are met, we predict greater PEBs interests in firms borrowing from lenders with these informational advantages.

Fourth, anecdotal evidence suggests that smaller and geographically concentrated banks tend to rely more on "soft" information in lending and active monitoring, as opposed to large national (multinational) banks that have a more data-driven arms-length approach to lending with risk management strategies based on extensive diversification. Accordingly, we examine whether borrowers from regional banks (as defined by the US Federal Reserve) tend to attract more PEBs.

Finally, we account for the nature of the relationship between the lender and borrower. When lenders and borrowers have close relationships (i.e. those developed through past lending arrangements), those lenders are less likely to engage in active monitoring given reliance placed on their past experiences with the borrower (Bharath et al. 2007). Relatedly, Petersen and Rajan (1995) report that relationship lenders use their informational advantage to extract rents from the borrower. Both these factors would likely undermine PEBs' willingness to rely on lender monitoring from relationship lenders. We capture

¹⁶ Lender specialization in a specific industry is determined by examining the percentage of lenders' portfolios attributable to loans outstanding to borrowers in a given industry. For each industry-quarter, we calculate the 75th percentile of this ratio for all lenders in our sample with at least 10 outstanding loans, and define a lender as being a specialist in that industry if their ratio exceeds this threshold by 1.5 times the inter-quartile range. We calculate this measure using a variety of industry definitions (e.g. FF12, FF48) and find consistent results.

relationship lending with an indicator variable for loans issued by lenders that have previously held loans issued to the same borrower within the last five years.

We follow the empirical approach specified in Equations 3 and 4. We report our results for both the levels and change specification in Panels A and B of Table 8, respectively. Beginning with Panel A, in Column (1), we show that PEB interest is less strongly associated with loans when the lenders of those loans have higher loan-loss provisions (i.e. are of lower quality). Conversely, as shown in Columns (2), (3), (4), and (5), we find that PEB interest is more strongly associated with presence of loans when lenders have greater lending intensity, geographical information advantages, industry specialization, and are classified as regional banks, respectively. This is consistent with PEBs placing greater reliance on lender monitoring when those monitoring efforts are likely to be more effective. Lastly, we find in Column (6) that our primary relationship is attenuated for relationship loans, consistent with our predictions that PEBs are reluctant to rely on the monitoring efforts of relationship lenders. While our results are broadly similar in Panel B (our change specification), we note that our findings are statistically insignificant in Columns (3), (4), and (6). We believe that this is partially driven by a lack of statistical power, as comparatively few new loans are issued by same state, industry specialist, or relationship lenders.

Together, our results reported in Table 8 support our prediction that the strength of the positive association between lender monitoring exposure and PEB interest is increasing (decreasing) in the perceived quality (lack of quality) of lenders' monitoring efforts based on characteristics of those lenders. As noted earlier, finding that our primary results are predictably influenced by lender attributes which are typically not directly related to borrower characteristics, reduces the possibility that our results arise from correlated unobservable factors relating to the borrowing firm.

4.3 Borrower Attributes & the Relative Value of Lender Monitoring

We next consider how the relationship between lender monitoring exposure and PEB interests varies with attributes of the borrowing firm. Several borrower characteristics could influence the extent of equity

monitoring. However, we restrict our analysis to only borrower attributes that are likely to influence the relative value of lender monitoring to PEBs as such attributes are expected to affect passive equity interest only through our theoretical path.

Theoretically, PEBs will derive less value from lender monitoring under the following two conditions. First, when there are alternative external monitoring mechanisms, other than through lenders. Such monitoring mechanisms could include the presence of active equity blocks and/or other forms of external monitoring, such as monitoring by market participants. Second, when there is less need to monitor the borrowing firm's manager because manager-owner agency conflicts are less severe, such as when the firm has strong corporate governance structures. High quality governance can restrict opportunistic managerial behavior, helping to align the incentives between managers and owners. We posit that in either circumstance where the value of lender monitoring is reduced, the primary positive relation between lender monitoring and PEB interest will be attenuated.

We examine several borrower characteristics that could affect the value of lender monitoring for passive blockholders. First, we focus on alternative monitoring mechanisms. One such mechanism is the presence of active equity blockholders. These blockholders, unlike their passive counterparts, assume large equity positions in firms for the express purpose of affecting managers' decisions and therefore will engage in high levels of monitoring. Because passive blockholders can depend on active blockholder monitoring, they will be less dependent on lender monitoring when there are outstanding active blockholder positions. The next monitoring mechanism we examine is financial analysts. Financial analysts are important information intermediaries who resolve information asymmetry between managers and outsiders, thereby helping to reduce contracting costs borne from agency conflicts (Healy and Palepu 2001). In addition, financial analysts serve as important external monitors that question and even discipline opportunistic managerial behavior (Yu 2008; Dyck, Morse, and Zingales 2010). For these reasons, we posit that financial

analyst coverage will lower the value of lender monitoring and weaken the positive association between lender monitoring exposure and PEB interest.

Second, we focus on how our primary relationship varies with features of borrowing firms' governance environments. Corporate governance acts as deterrent to managerial misconduct. Therefore, agency problems between managers and owners can be mitigated through strong corporate governance which, in turn, reduces the marginal benefit of external monitoring (i.e. lender monitoring). Pursuant to this, we expect that firms exhibiting attributes associated with high-quality governance will have a weaker relationship between lender monitoring exposure and PEB interest.

We measure firms' quality of governance several ways. First, we examine shareholder rights, which are considered an important component of corporate governance (Gompers, Ishii, and Metrick 2003). We develop a firm-specific composite measure of shareholder rights using various shareholder rights measures used in prior literature. Specifically, we define a firm as having high shareholder rights when any one of the three following conditions are met: the CEO does not also serve as chairman of the board, CEO total compensation is below the industry median, and the board is not classified.¹⁷ We also employ a state-wide measure which considers the number of antitakeover provisions (ATPs) in effect in the borrowing firm's headquarter state for each quarter. High ATPs can shield managers from takeovers such that managers become entrenched, leading to potentially value-destructive actions (Bebchuk, Cohen, and Ferrell 2009; Ding et al. 2021).¹⁸ Thus, we define firms subject to fewer of these ATPs (not exceeding the sample median of two) as those with greater shareholder rights since managers are less protected. Second, we directly examine the efficacy of firms' internal governance mechanisms. More specifically, we consider the

¹⁷ We select these three proxies for shareholder rights given their wide availability of data as well as their use in prior literature to capture our construct of interest (Armstrong, Ittner, and Larcker 2012; Larcker, Ormazabal, and Taylor 2011). We note that while each of these measures capture different features of firms' shareholder rights, they tend to suffer from limited statistical power. As such, we implement a composite measure as a way of increasing the statistical power without sacrificing the construct validity of our measure.

¹⁸ We note that there is only one state which, for any portion of our sample period, has no active antitakeover provisions (ATPs). Therefore we are unable to use ATP promulgation as a cross-sectional and time-series indicator.

expertise of a firm's board of directors. Boards with higher levels of collective financial expertise are more likely to be able to effectively oversee managers and protect the interests of shareholders (Defond et al. 2005). Thus, we expect that as the collective expertise of a firm's board increases, the relative value of additional external monitoring provided by lenders decreases. We define firms as having greater board expertise when there is strictly greater than one financial expert on the board, and when the percentage of directors with financial expertise is in the upper quartile of our sample distribution.

Results are reported for both the levels and change specification in Panels A and B of Table 9, respectively. Columns (1) and (2) respectively show that our primary relationship is significantly weaker when borrowers are subject to the monitoring efforts of a single active equity blockholder and multiple active equity blockholders. Columns (3) and (4) provide similar evidence for borrowers with both single and multiple financial analyst coverage. These results are consistent with our conjecture that when borrowers are subject to other external monitoring agents to whom PEBs can delegate, exposure to lender monitoring is less important. Proceeding to our analysis of firms' corporate governance environments, the results presented in Columns (5) and (6) and Columns (7) and (8) suggest that PEBs rely less on lender monitoring when borrowing firms exhibit higher levels of shareholder rights and director expertise, respectively. This is again consistent with our predictions. We note that, as shown in Panel B, some of our estimated coefficients for measures of both alternative external monitoring (Column 1) and governance quality (Column 5) are negative, but not significant. We again attribute this partially to a lack of statistical power given the relative rarity of new loans issued to firms exhibiting these attributes. Moreover, given the consistency of our findings across the remaining specifications, we do not feel this constitutes a significant threat to the accuracy of our inferences.

Collectively, these results suggest that our primary findings are significantly attenuated when firms exhibit attributes associated with lower agency conflicts. Together with the results presented in Sections

4.1 and 4.2, we find evidence that our primary findings are driven by PEBs' demand for the effective monitoring efforts of lenders, substantiating our inferences.

5 Shareholder-Lender Agency Problem

Our primary hypothesis implicitly assumes that lenders and shareholders share similar monitoring objectives. We base our hypothesis on the fundamental agency problem between managers and capital providers, which predicts that all capital providers would have congruent monitoring interests to minimize managerial moral hazard (Holmström 1979). Our hypothesis, however, ignores the other agency problem that arises between owners (equity shareholders) and lenders (debtholders) because of the propensity for shareholders to extract wealth from debtholders (Jensen and Meckling 1976; Myers 1977). The latter agency problem suggests that debtholders and shareholders could face conflicting monitoring incentives. Accordingly, lenders are required to monitor to protect their specific interests. Often such lender monitoring is not beneficial for shareholders. Therefore, the shareholder-debtholder agency problem generates an alternative to our primary hypothesis that suggests equity blockholders will rely on lender monitoring. Empirically, whether we find that equity blockholders do or do not rely on lender monitoring depends on the relative strength of the two hypotheses. Accordingly, we conjecture that we should find a weaker association between PEB interest and syndicated loans when shareholder-lender agency conflicts are acute.

To test our conjecture, we consider circumstances under which shareholder-debtholder agency conflicts are likely to be severe. The two conditions that we identify are financial distress and high growth opportunities. When a firm faces financial distress, debtholders are primarily concerned with protecting their invested capital in the short run, often to the detriment of the borrower's long-term recovery and potential subsequent growth. In contrast, shareholders of distressed firms are incentivized to take excessive risk, which could *ex ante* enhance shareholder value at the expense of debtholders. For these reasons, firms

in financial distress face higher agency costs of debt (Mello and Parsons 1992; Andrade and Kaplan 1998; Almeida and Philippon 2007).

Conversely, higher agency costs of debt can also arise for firms with significant growth opportunities. Such situations call for large investments, often in intangible assets. Shareholders gain when these investments succeed but debtholders often bear the losses if they do not. This creates conflicts of interest between debtholders and shareholders. Indeed, prior literature suggests that high growth firms use debt conservatively and that even when they do, they rely primarily on short-term debt likely because such firms face higher costs of debt owing to these agency problems (Graham 2000; Johnson 2003; Van Binsbergen, Graham, and Yang 2010). Hackbarth & Mauer (2012) formally model and provide empirical evidence showing that the agency cost of debt increases in the growth option component of firm value. Billett et al. (2007) show that lenders use debt covenants to protect their interests in high growth firms. All this evidence suggests that high growth firms face higher agency costs of debt, which lenders mitigate through specific monitoring.

We predict that as firms' agency costs of debt increase, the positive relationship we observe between lender monitoring exposure and PEB interest will weaken. Therefore, we expect syndicated loans to be less strongly associated with the incidence of PEBs when firms face either financial distress or high growth opportunities. To explore this empirically, we implement our augmented models described in Equations (3) and (4) with cross-sectional indicators for firms with high financial distress or, alternatively, high growth opportunities. Because of significant non-linearities in the relation between our control variables and passive equity monitoring across partitions of either distress or growth, we interact all our control variables with our distress or growth partitions. We predict a positive and significant β_1 (main effect for presence of loans in non-distressed or non-growth sub-sample), as well as a negative and significant β_3 interaction coefficient.

We begin by examining partitions based on financial distress, which we empirically capture through several measures. We define a firm as being in financial distress in a given quarter-year when: (1) core earnings are negative; (2) retained earnings are negative; and (3) the interest coverage ratio is below 1. Additionally, we use a revised version of the Altman Z-Score (Altman & Hotchkiss, 1993) and a measure proposed by Shumway (2001) to measure a firm's proximity to bankruptcy.¹⁹ We define firms in the upper quartile of the sample distribution of these risk measures as being in financial distress.

Results are reported in Table 9, with the levels analysis shown in Panel A, and the change specification in Panel B. For the levels (Panel A), we find results consistent with our predictions. The coefficient for the interaction between the loan indicator and the distress indicator (β_3) is negative and statistically significant for every one of the five distress proxies, suggesting that the positive relation between presence of a loan and incidence of passive blocks (β_1) is attenuated for financial distressed firms. Also, with the exception of the Shumway bankruptcy score, the magnitude of the interaction coefficient is a significant portion of the main effect, suggesting that the attenuation through distress is economically significant.²⁰ In Panel B, we find qualitatively similar results. The interaction coefficient is negative and marginally significant for all distress measures with the exception of the Shumway bankruptcy measure. The magnitudes of the interaction coefficients are again economically significant (excepting the one of Shumway measure). Moreover, the linear combination of the primary coefficient on a new loan and the interaction term ($\beta_1 + \beta_3$) is insignificantly different from zero across all measures, suggesting that new loans are not related to subsequent new passive block filings for distressed firms. Overall, our results are consistent with the

¹⁹ We note that both the Altman Z-Score and Shumway (2001) measures are designed specifically to predict bankruptcy. Given that bankruptcy is an exceedingly rare event, these measures tend to be highly skewed, and are therefore less likely to accurately capture less severe instances of financial distress.

²⁰ Our indicators for negative core earnings and interest coverage ratio < 1 are calculated for each current firm-quarter observation. In untabulated robustness tests, we replace the indicators with the same measures calculated on a three-year rolling basis, and find that our results are unchanged.

positive association between syndicated loans and the incidence of passive blocks being significantly attenuated by the presence of financial distress.²¹

We next examine firms facing high growth opportunities. Drawing from prior literature, we define a firm as having high growth opportunities in a given year-quarter based on several measures: (1) sales-to-price ratio; (2) book-to-market ratio; (3) Tobin's Q; and (4) R&D intensity (Chan, Karceski, and Lakonishok 2003; Collins and Kothari 1989; Vidhan K. Goyala, Kenneth Lehn, and Stanko Racic 2002).²² Firms with low (lower-quartile) sales-to-price or book-to-market ratios and firms with high (upper-quartile) Tobin's Q or R&D intensities are defined as high growth.

Results are reported in Table 10. In Panel A, we present the levels analysis. Consistent with our predictions, we find that the interaction between the presence of a loan and the indicator for high growth is negative and statistically significant for every one of our measures for growth. The economic significance of this interaction is extremely significant, and the positive relation between loans and passive blocks is entirely reversed for high growth firms in many of the cases. The results in Panel B are consistent with those in Panel A; the interaction coefficients are negative and significant (both statistically and economically) for every single measure of growth. Overall, the evidence strongly points to a significant attenuation of the positive relation between lender monitoring and PEB interest for firms with high growth opportunities.

Taken together, the results presented in Tables 9 and 10 show that the positive relationship we observe between lender monitoring exposure and PEB interest is weaker when firms face high levels of shareholder-

²¹ We believe that there are several factors that contribute to our weaker results in the change specification. One potential confound is that we may be partially capturing the positive signaling effect the issuance of a new loan may have for a financially distressed firm. The intuition is that for firms that face severe financial distress (i.e. high risk of bankruptcy), PEBs may be responding favorably to the issuance of a loan as a credible signal of the firm's viability going forward. In untabulated tests, we find that interaction coefficient remains negative and becomes increasingly statistically significant when we exclude firms in the highest decile of bankruptcy risk. However, we find in these tests that the negative and significant main effect of distress is dominant. As such, we infer that our findings are simply usurped by the direct effect of distress on PEB interest.

²² Given that we control for Tobin's Q in our baseline specification, we remove this from our suite of control variables when growth is defined based on a firm having a high Tobin's Q measure.

lender agency conflicts. This is consistent with passive blockholders being less likely to rely on lender monitoring efforts when lender and equity blockholder objectives diverge, and thus lender monitoring is a less viable substitute for equity blockholder monitoring. Overall, these results strengthen our primary inference that for the majority of firms passive blockholders rely on lender monitoring.

6. Conclusion

We examine whether the monitoring efforts of lenders serve as a substitute for equity blockholder monitoring. When firms are subject to lender monitoring, equity blockholders are able to rely on those lenders, thereby avoiding the costly duplication of monitoring efforts. We predict and find evidence to support that firms with exposure to lender monitoring through syndicated loans are more likely to have PEBs. Moreover, we find that the initiation of new loans, and resulting increase in lender monitoring exposure, is followed by increases in PEB interest, allowing us to draw inferences in the spirit of Granger-causality. We also show that our primary findings are increasing in the monitoring incentives and capabilities of lenders, and decreasing in the severity of agency conflicts between lenders and equity blockholders, providing additional support that our results are indeed driven by a substitution of monitoring efforts.

Our study is the first to examine the ways in which exposure to lender monitoring can affect equity blockholders. In doing so, we build meaningfully on both the debt contracting and equity blockholder literatures. In addition, our focus on PEBs is commensurate with the increased relevance of passive investing in modern capital markets. Lastly, our exploration of debt-equity conflicts in the context of monitoring incentives offers a novel perspective on how agency conflicts between lenders and equity blockholders can be dominated by those which exist between managers and capital providers more generally.

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Table 1
Sample Selection

Panel A: Firm-Quarter Observations

Stage	Description	Record Count	Firm Count
1	<i>Raw Compustat Firm-Quarter Observations</i>	829,568	25,352
2	<i>Remove Out of Scope Firms</i>	296,423	7,976
3	<i>Remove Observations with Insufficient Data</i>	264,280	7,558

Panel B: Syndicated Loan Observations

Stage	Description	Loan		
		Observations	Borrowers	Lenders
1	<i>Raw LoanConnector Dataset</i>	263,356	97,474	11,497
2	<i>Remove Loans not in Sample Period</i>	135,136	20,484	7,481
3	<i>Remove Loans with Missing Firm Fundamentals Data</i>	33,145	9,110	2,461

Panel C: SC-13 Filing Observations

Stage	Description	Total Filings	Filers	Issuers
1	<i>Raw SC-13 Filings Extracted</i>	705,945	56,018	27,212
2	<i>Drop duplicated and out-of-scope filings</i>	376,714	22,287	7,745
3	<i>Remove filings with missing firm fundamentals</i>	342,778	20,082	7,557
4	<i>Remove Passive Indexer Filings</i>	303,635	20,074	7,537

Table 1 provides a detailed overview of the sample construction. Panel A reports the observation and unique firm count for firm-quarter observations obtained from Compustat. Panel B reports the observation, borrower, and lender (lead arranger) counts for syndicated loan observations obtained from LoanConnector. Panel C reports the observation, filer (blockholder) and issuer (subject firm) counts for SC-13 filings obtained directly from SEC EDGAR. All data are restricted to our sample period of interest, spanning January 1, 1998 to December 31, 2020.

Table 2
Passive Blockholder Presence and Outstanding Loans – Univariate Analysis

	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>P25</i>	<i>Median</i>	<i>P75</i>	<i>Max</i>
<i>Log(Market Value)</i>	264,280	6.200	2.125	1.457	4.666	6.203	7.644	11.356
<i>Tobin's Q</i>	264,280	2.295	2.221	0.604	1.166	1.583	2.485	17.345
<i>Sales Growth</i>	264,280	0.077	0.425	-0.730	-0.057	0.023	0.113	3.089
<i>ROA</i>	264,280	-0.012	0.083	-0.604	-0.010	0.008	0.020	0.101
<i>Leverage Ratio</i>	264,280	0.527	0.313	0.041	0.306	0.505	0.682	2.133
<i>Amihud Illiquidity</i>	264,280	0.181	1.284	0.000	0.001	0.002	0.013	15.768
<i>Log(Firm Age)</i>	264,280	4.874	1.173	0.000	4.205	5.056	5.733	6.892

Table 2 reports summary statistics related to the firm-quarter observations in our final sample. The variables included in this descriptive panel include the control measures implemented in subsequent analyses. All measures listed are winsorized at the 1% level. Detailed variable descriptions are presented in Appendix A.

Table 3
Passive Blockholder Presence and Outstanding Loans – Univariate Analysis

Panel A: Loan Indicator and Passive Ownership Indicator

	<i>Passive Ownership = 0</i>	<i>Passive Ownership = 1</i>	<i>Total</i>	<i>Row-Wise Percentage</i>
	<i>(a)</i>	<i>(b)</i>	<i>(c) = (a) + (b)</i>	<i>(b) / (c)</i>
<i>Loan Indicator = 0</i>	32,687	105,740	138,427	
<i>(d)</i>	11.6%	37.4%	49.0%	76.39%
<i>Loan Indicator = 1</i>	21,723	122,483	144,206	
<i>(e)</i>	7.7%	43.3%	51.0%	84.94%
			<i>Difference: (e) - (d)</i>	8.55%
			<i>(z-stat)</i>	(57.97***)

Panel B: Loan Indicator and Passive Block Count

Average Passive Block Count

	<i>(a)</i>
<i>Loan Indicator = 0</i>	
<i>(a)</i>	2.18
<i>Loan Indicator = 1</i>	
<i>(b)</i>	2.38
<i>Difference: (b) - (a)</i>	0.20
<i>(t-stat)</i>	(27.75***)

Table 3 examines the association between outstanding syndicated loans and passive equity blockholder ownership. The underlying unit of observation for this analysis is at the firm-quarter level. Panel A reports the number of firm-quarter observations in our sample for which there is/is not an outstanding syndicated loan as of the firm-quarter end (*Loan Indicator* = 1/0 respectively) and for which there is/is not an outstanding passive equity blockholder position as of the firm-quarter end (*Passive Ownership* = 1/0 respectively). The upper number within the main cells reports the number of observations, while the percentage reported immediately below in parentheses reports the portion of the total sample represented in that cell. We further show the row-wise percentage of firm-quarters with outstanding passive equity blockholder positions for groups with and without outstanding loans, and show that the difference thereof is statistically significant. This provided univariate evidence that firm-quarters with outstanding loans are significantly more likely to have outstanding passive equity blockholders. Panel B reports the average number of outstanding passive equity blockholder positions (*Average Passive Block Count*) for firm-quarters for which there is/is not an outstanding syndicated loan as of the firm-quarter end (*Loan Indicator* = 1/0 respectively). We further show that the difference between these averages is statistically significant, providing univariate evidence that firm-quarters with outstanding loans have a higher average number of passive equity blockholder positions. Results cover 282,633 firm-quarter observations across 7,558 unique firms with quarters ending between January 1, 1998 and December 31, 2020.

Table 4
Passive Blockholder Presence and Outstanding Loans – Regression Analysis

	<i>Passive Blockholder Indicator = 1</i>		<i>Passive Blockholder Count</i>	
	(1)	(2)	(3)	(4)
<i>Loan Indicator</i>	0.381*** (31.38)	0.440*** (25.13)	0.093*** (24.54)	0.093*** (10.12)
<i>log(Market Value)</i>	0.082*** (22.64)	0.083*** (6.48)	0.016*** (17.88)	0.013*** (5.06)
<i>Tobin's Q</i>	-0.061*** (-24.56)	-0.068*** (-9.64)	-0.024*** (-25.56)	-0.026*** (-10.11)
<i>Sales Growth</i>	-0.064*** (-5.60)	-0.067*** (-4.44)	-0.007* (-1.71)	-0.014** (-2.52)
<i>ROA</i>	-0.087 (-1.25)	0.074 (0.54)	0.009 (0.38)	0.145*** (3.24)
<i>Leverage Ratio</i>	-0.607*** (-37.40)	-0.625*** (-24.89)	-0.208*** (-33.73)	-0.223*** (-25.60)
<i>Amihud Illiquidity</i>	-0.087*** (-25.83)	-0.102*** (-19.35)	-0.066*** (-30.23)	-0.092*** (-17.79)
<i>log(Firm Age)</i>	-0.114*** (-20.34)	-0.140*** (-9.95)	-0.092*** (-64.59)	-0.097*** (-22.39)
<i>Model</i>	Logit	Logit	Poisson	Poisson
<i>Specification</i>	Pooled	Fama-Macbeth	Pooled	Fama-Macbeth
<i>Fixed Effects</i>	Yes	-	Yes	-
<i>Adj. (Pseudo) R-Squared</i>	0.039	0.0448	0.0234	0.019
<i>Observations</i>	264,280	264,280	264,280	264,280

Table 3 examines the association between outstanding syndicated loans and passive equity blockholder ownership. The reported regression results are conducted at the firm-quarter level. Models are estimated using the following baseline specification

$$Passive\ Blockholder\ Measure = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Controls + Fixed\ Effects + \epsilon$$

For columns (1) and (2), the dependent variable is defined as an indicator set equal to one for firm-quarters with at least one outstanding passive equity blockholder position as of the firm-quarter end. For columns (3) and (4), the dependent variable is defined as a count measure of the number of unique outstanding passive blockholder positions as of the firm-quarter end. The explanatory variable of interest for all columns is Loan Indicator, which is an indicator set equal to one for firm-quarters for which there is at least one outstanding syndicated loan as of the firm-quarter end. Results cover 264,280 firm-quarter observations across 6,927 unique firms with quarters ending between January 1, 1998 and December 31, 2020. See Appendix A for definition of additional control variables.

Columns (1) and (2) are estimated using logistic regression, while Columns (3) and (4) are estimated using a Poisson model. Given that the dependent variable is binary (can take only a value of 0 or 1), OLS is misspecified but included to facilitate interpretation of coefficient estimates, although we include discussion of untabulated OLS estimates of these models. Columns (1) and (3) are estimated as a pooled specification, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Columns (2) and (4) are estimated using a Fama-Macbeth specification in which each Year-Quarter is estimated independently in the first stage, and averaged in the second stage. Pooled regression standard errors are robust and adjusted for clustering at the firm level, while Fama-Macbeth standard errors are computed in the absence of fixed effects. In untabulated analyses, we estimate Fama-Macbeth standard errors using the Newey-West adjustment for serial correlation with lag periods 1 and 4 with no change in our inferences. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 5
New Passive Blockholders and New Loans – Univariate Analysis

Panel A: New Loan Indicator and New Passive Ownership Indicator

	<i>New Passive Block = 0</i>	<i>New Passive Block= 1</i>	<i>Total</i>	<i>Row-Wise Percentage</i>
	<i>(a)</i>	<i>(b)</i>	<i>(c) = (a) + (b)</i>	<i>(b) / (c)</i>
<i>New Loan Indicator = 0</i>	109,648	129,984	239,632	
<i>(d)</i>	42.1%	49.9%	92.0%	54.24%
<i>New Loan Indicator = 1</i>	8,871	12,121	20,992	
<i>(e)</i>	3.4%	4.6%	8.0%	57.74%
			<i>Difference: (e) - (d)</i>	3.50%
			<i>(z-stat)</i>	(9.759***)

Panel B: New Loan Indicator and New Passive Block Count

	<i>Average New Passive Block Count</i>
<i>New Loan Indicator = 0</i>	
<i>(a)</i>	1.02
<i>New Loan Indicator = 1</i>	
<i>(b)</i>	1.09
<i>Difference: (b) - (a)</i>	0.07
<i>(t-stat)</i>	(6.870***)

Panel C: Net New Loan Indicator and New Passive Ownership Indicator

	<i>Net Passive Increase = 0</i>	<i>Net Passive Increase= 1</i>	<i>Total</i>	<i>Row-Wise Percentage</i>
	<i>(a)</i>	<i>(b)</i>	<i>(c) = (a) + (b)</i>	<i>(b) / (c)</i>
<i>New Loan Indicator = 0</i>	170,385	69,247	239,632	
<i>(d)</i>	65.4%	26.6%	92.0%	28.90%
<i>New Loan Indicator = 1</i>	14,557	6,435	20,992	
<i>(e)</i>	5.6%	2.5%	8.0%	30.65%
			<i>Difference: (e) - (d)</i>	1.76%
			<i>(z-stat)</i>	(5.38***)

Continued on Next Page

Table 5 - Continued

New Passive Blockholders and New Loans – Univariate Analysis

Panel D: New Loan Indicator and Net Passive Blockholder Count Change

	<i>Average Net Passive Blockholder Count Change</i>
<i>New Loan Indicator = 0</i>	
(a)	0.03
<i>New Loan Indicator = 1</i>	
(b)	0.07
<i>Difference: (b) - (a)</i>	0.04
<i>(t-stat)</i>	(3.337***)

Table 5 examines the association between newly issued syndicated loans and new passive equity blockholder positions. The underlying unit of observation for this analysis is at the firm-quarter level. Panel A reports the number of firm-quarter observations in our sample for which there is/is not a new syndicated loan issued during the firm-quarter (New Loan Indicator = 1/0 respectively) and for which there is/is not a new passive equity blockholder position established in the 12 months following the firm-quarter end (New Passive Ownership = 1/0 respectively). The upper number within the main cells reports the number of observations, while the percentage reported immediately below in parentheses reports the portion of the total sample represented in that cell. We further show the row-wise percentage of firm-quarters with new passive equity blockholder positions for groups with and without newly issued loans, and show that the difference thereof is statistically significant. This provides univariate evidence that firm-quarters with newly issued loans are significantly more likely to be followed by a new passive filing within the following 12 months. Panel B reports the average number of new passive equity blockholder positions (Average New Passive Block Count) for firm-quarters for which there is/is not a new syndicated loan issued during the firm-quarter end (New Loan Indicator = 1/0 respectively). We further show that the difference between these averages is statistically significant, providing univariate evidence that firm-quarters with newly issued loans have a higher average number of new passive equity blockholder positions within the following 12 months. Panels C and D replicate the analyses reported in Panels A and B, respectively, using alternative measures of passive equity blockholder incidence changes. In lieu of the New Passive Ownership Indicator, Panel C considers firm-quarters for which there is/is not an net increase in outstanding passive equity blockholders from the start of quarter t to the end of quarter t+3 (Net Passive Ownership Increase = 1/0 respectively). In lieu of Average New Passive Block Count, Panel C considers the average net change in passive equity blockholders from the start of quarter t to the end of quarter t+3 (Average Net Passive Blockholder Count Change). This provides univariate evidence that firm-quarters with newly issued loans are significantly more likely to be followed by a net increase in passive equity blockholder ownership within the following 12 months. Results cover 260,624 firm-quarter observations across 7,553 unique firms with quarters ending between January 1, 1998 and December 31, 2019.

Table 6
New Passive Blockholder and New Loans

	<i>New Passive Blockholder Indicator</i>		<i>New Passive Blockholder Count</i>		<i>Net Passive Blockholder Indicator</i>		<i>Net Passive Blockholder Count</i>	
	(1)	(2)	(3)	(4)	(3)	(4)	(3)	(4)
<i>New Loan Indicator</i>	0.048*** (3.05)	0.044*** (2.94)	0.027*** (2.91)	0.031*** (3.28)	0.052*** (3.18)	0.068*** (3.23)	0.042*** (4.06)	0.047*** (3.71)
<i>log(Market Value)</i>	0.066*** (27.23)	0.062*** (9.34)	0.036*** (8.75)	0.027*** (6.61)	0.055*** (22.76)	0.048*** (9.51)	0.015*** (4.31)	0.015*** (6.81)
<i>Tobin's Q</i>	-0.037*** (-16.61)	-0.039*** (-11.43)	-0.014*** (-4.14)	-0.016*** (-7.97)	-0.016*** (-7.17)	-0.026*** (-7.73)	0.015*** (4.98)	0.014*** (4.77)
<i>Sales Growth</i>	0.005 (0.50)	-0.006 (-0.45)	0.013** (1.97)	0.006 (0.80)	-0.003 (-0.26)	-0.024* (-1.88)	0.004 (0.52)	-0.004 (-0.45)
<i>ROA</i>	-0.339*** (-5.39)	-0.182** (-2.25)	-0.239*** (-3.20)	-0.201*** (-3.37)	-0.173 (-2.72)	-0.091 (-1.23)	0.262*** (5.02)	0.255*** (4.35)
<i>Leverage Ratio</i>	-0.051*** (-3.49)	-0.079*** (-3.67)	0.009 (0.39)	-0.008 (-0.56)	-0.096*** (-6.27)	-0.096*** (-4.63)	-0.036*** (-2.59)	-0.044*** (-3.04)
<i>Amihud Illiquidity</i>	-0.081*** (-19.55)	-0.110*** (-9.07)	-0.061*** (-6.36)	-0.099*** (-7.42)	-0.050*** (-10.93)	-0.024 (-1.04)	0.002 (0.85)	0.006*** (3.09)
<i>log(Firm Age)</i>	-0.202*** (-50.41)	-0.206*** (-18.14)	-0.138*** (-22.97)	-0.144*** (-17.50)	-0.217*** (-54.10)	-0.219*** (-24.90)	-0.126*** (-24.25)	-0.123*** (-12.86)
<i>Existing Passive Blockholder</i>	1.032*** (91.01)	1.108*** (46.47)	0.141*** (37.73)	0.135*** (60.64)				
<i>Model</i>	Logit	Logit	Poisson	Poisson	Logit	Logit	OLS	OLS
<i>Specification</i>	Pooled	Fama-Macbeth	Pooled	Fama-Macbeth	Pooled	Fama-Macbeth	Pooled	Fama-Macbeth
<i>Fixed Effects</i>	Yes	-	Yes	-	Yes	-	Yes	-
<i>Adj. (Pseudo) R-Squared</i>	0.0765	0.0481	0.0746	0.0476	0.0229	0.0181	0.0259	0.0149
<i>Observations</i>	250,779	250,779	250,779	250,779	251,323	251,323	251,323	251,323

Table 6 examines the association between newly issued syndicated loans and new passive equity blockholder positions. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Blockholder\ Measure = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Controls + Fixed\ Effects + \epsilon$$

For all columns, the dependent variable is defined as an indicator set equal to one for firm-quarters with at least one new passive blockholder position established in the 12 months following the firm-quarter. For columns (1) and (2), the dependent variable is defined as an indicator set equal to one for firm-quarters with at least one new passive blockholder position established in the 12 months following the firm-quarter. For columns (3) and (4), the dependent variable is defined as a count measure of the number of new passive blockholder positions established in the 12 months following the firm-quarter. For columns (5) and (6), the dependent variable is an

indicator set equal to one for firm-quarters with a net increase in passive blockholder positions outstanding less the number of passive blockholder positions outstanding as of the start of quarter t . For columns (7) and (8), the dependent variable is defined as the number of passive blockholder positions outstanding at the end of quarter $t+3$, net of the number of passive blockholder positions outstanding as of the start of quarter t . The explanatory variable of interest for all columns is New Loan Indicator, which is an indicator set equal to one for firm-quarters for which a new syndicated loan is issued during the firm-quarter. Results cover 251,323 firm-quarter observations across 6,570 unique firms with quarters ending between January 1, 1998 and December 31, 2019. See Appendix A for definition of additional control variables. Columns (1), (2), (5), and (6) are estimated using logistic regression given a binary dependent variable. Columns (3) and (4) are estimated using a Poisson model given a strictly non-negative count dependent variable. Columns (7) and (8) are estimated using OLS. Columns (1), (3), (5), and (7) are estimated as a pooled specification, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Columns (2), (4), (6), and (8) are estimated using a Fama-Macbeth specification in which each Year-Quarter is estimated independently in the first stage, and averaged in the second stage. Pooled regression standard errors are robust and adjusted for clustering at the firm level, while Fama-Macbeth standard errors are computed in the absence of fixed effects. In untabulated analyses, we estimate Fama-Macbeth standard errors using the Newey-West adjustment for serial correlation with lag periods 1 and 4 with no change in our inferences. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 7
Cross-Sectional Variation in Loan Features

Panel A: Cross-Section

	(1)	(2)	(3)	(4)	(5)
	Loan Intensity (Upper Quartile)	Secured Loan Indicator	Performance Pricing Provision	Performance Covenant	Covenant Tightness
<i>Loan Indicator</i>	0.258*** (20.00)	0.076*** (4.86)	0.232*** (16.16)	-0.009 (-0.58)	0.404*** (28.75)
<i>Loan Feature</i>	0.433*** (22.90)	0.464*** (29.05)	0.287*** (18.27)	0.601*** (38.20)	0.163*** (6.68)
<i>Linear Combination</i>	0.691*** (35.89)	0.540*** (38.53)	0.519*** (36.21)	0.593*** (42.77)	0.567*** (22.76)
<i>Controls</i>	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0411	0.0423	0.0403	0.0448	0.0493
<i>Observations</i>	264,280	264,280	264,280	264,280	212,021

Table Continued on Next Page

Table 7 (Continued)
Cross-Sectional Variation in Loan Features

Panel B: Change Specification

	(1)	(2)	(3)	(4)	(5)
	Loan Intensity (Upper Quartile)	Secured Loan Indicator	Performance Pricing Provision	Performance Covenant	Covenant Tightness
<i>New Loan Indicator</i>	0.004 (0.24)	-0.097*** (-4.65)	0.003 (0.15)	-0.054** (-2.51)	0.032* (1.79)
<i>Loan Feature</i>	0.171*** (4.93)	0.316*** (10.48)	0.117*** (3.84)	0.206*** (6.95)	0.177*** (3.42)
<i>Linear Combination</i>	0.176*** (5.75)	0.219*** (9.54)	0.120*** (4.88)	0.152*** (6.94)	0.209*** (4.25)
<i>Controls</i>	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0765	0.0768	0.0765	0.0766	0.0579
<i>Observations</i>	250,779	250,779	250,779	250,779	211,680

Table 7 examines cross sectional variation in association between syndicated loans and passive equity blockholder positions. Panel A reports regression analyses conducted at the cross-sectional level, in which the dependent variable of interest is an indicator for the presence of a passive equity blockholder, and the explanatory variable of interest is the presence of an outstanding loan. Loan features in this specification are captured as the maximum value for each measure attributable to a given firm-quarter. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$Passive\ Block\ Indicator = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Loan\ Feature + \beta_{\Sigma} Controls + Fixed\ Effects + \epsilon$$

Panel B reports regression analyses conducted at the change level, in which the dependent variable of interest is an indicator for the presence of a new passive equity blockholder position established between the start of quarter t and the end of quarter t+3, while the explanatory variable of interest is the presence of a newly issued loan at some point during firm-quarter t. Loan features in this specification are captured as the maximum value for each measure attributable to a given firm-quarter. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Block\ Indicator = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Loan\ Feature + \beta_{\Sigma} Controls + Fixed\ Effects + \epsilon$$

Both Panels B and C include additional tests of the sum of coefficients β_1 and β_2 (Linear Combination) with the corresponding t-statistic. All columns are estimated using a pooled logistic regression specification given a binary variable in both cases, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Pooled regression standard errors are robust and adjusted for clustering at the firm level. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 8
Cross-Sectional Variation in Lender Features

Panel A: Cross-Section

	(1)	(2)	(3)	(4)	(5)	(6)
	High Loan Loss Provisions	High Lending Intensity	Same-State Lender	Industry Specialist	Regional Bank	Relationship Lender
<i>Loan Indicator</i>	0.431*** (31.99)	0.348*** (28.13)	0.370*** (29.02)	0.371*** (29.60)	0.328*** (26.28)	0.439*** (29.41)
<i>Lender Attribute</i>	-0.161*** (-10.14)	0.331*** (11.47)	0.053*** (2.62)	0.059*** (2.86)	0.414*** (15.95)	-0.117*** (-7.37)
<i>Linear Combination</i>	0.2700*** (17.08)	0.679*** (23.20)	0.423 (20.90)	0.430*** (20.22)	0.742*** (28.22)	0.321*** (22.59)
<i>Controls</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0394	0.0395	0.0390	0.0390	0.0400	0.0392
<i>Observations</i>	264,280	264,280	264,280	264,280	264,280	264,280

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Table 8 (Continued)
Cross-Sectional Variation in Lender Features

Panel B: Change Specification

	(1)	(2)	(3)	(4)	(5)	(6)
	High Loan Loss Provisions	High Lending Intensity	Same-State Lender	Industry Specialist	Regional Bank	Relationship Lender
<i>New Loan Indicator</i>	0.067*** (3.64)	0.037** (2.30)	0.051*** (3.06)	0.049*** (2.98)	0.037** (2.27)	0.064*** (2.99)
<i>Lender Attribute</i>	-0.065** (-2.01)	0.191*** (2.89)	-0.027 (-0.59)	-0.012 (-0.25)	0.185*** (2.92)	-0.033 (-1.10)
<i>Linear Combination</i>	0.002 (0.05)	0.228*** (3.54)	0.024 (0.57)	0.037 (0.78)	0.222*** (3.60)	0.031 (1.43)
<i>Controls</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0765	0.0765	0.0765	0.0765	0.0765	0.0765
<i>Observations</i>	250,779	250,779	250,779	250,779	250,779	250,779

Table 8 examines cross sectional variation in association between syndicated loans and passive equity blockholder positions. Panel A reports regression analyses conducted at the cross-sectional level, in which the dependent variable of interest is an indicator for the presence of a passive equity blockholder, and the explanatory variable of interest is the presence of an outstanding loan. Lender Attributes in this specification are captured as the maximum value for each measure attributable to a given firm-quarter. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$Passive\ Block\ Indicator = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Lender\ Attribute + \beta_\Sigma Controls + Fixed\ Effects + \epsilon$$

Panel B reports regression analyses conducted at the change level, in which the dependent variable of interest is an indicator for the presence of a new passive equity blockholder position established between the start of quarter t and the end of quarter t+3, while the explanatory variable of interest is the presence of a newly issued loan at some point during firm-quarter t. Lender Attributes in this specification are captured as the maximum value for each measure attributable to a given firm-quarter. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Block\ Indicator = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Lender\ Attribute + \beta_\Sigma Controls + Fixed\ Effects + \epsilon$$

Both Panels B and C include additional tests of the sum of coefficients β_1 and β_2 (Linear Combination) with the corresponding t-statistic. All columns are estimated using a pooled logistic regression specification given a binary variable in both cases, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Pooled regression standard errors are robust and adjusted for clustering at the firm level. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 9
Cross-Sectional Variation in Borrower External Monitoring Attributes

Panel A: Cross-Section

	<i>Passive Blockholder Indicator = 1</i>							
	<i>Active Blockholders</i>		<i>Analyst Coverage</i>		<i>Shareholder Rights</i>		<i>Director Expertise</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Zero	Multiple	Non-Zero	Multiple	Low ATP State	Composite SH Rights	Multiple Expert Directors	High Board Expertise
<i>Attribute Main Effect</i>	-1.699*** (-28.95)	-1.917*** (-23.04)	3.427*** (51.45)	3.764*** (56.97)	-0.912*** (-10.74)	2.189*** (36.67)	1.187*** (14.36)	-0.710*** (-7.48)
<i>Loan Indicator</i>	0.404*** (24.98)	0.407*** (29.73)	0.427*** (17.98)	0.460*** (22.48)	0.454*** (29.00)	0.549*** (21.43)	0.581*** (20.38)	0.481*** (25.49)
<i>Loan Indicator x Attribute</i>	-0.043* (-1.68)	-0.125*** (-3.49)	-0.068** (-2.42)	-0.162*** (-6.10)	-0.356*** (-10.74)	-0.173*** (-5.88)	-0.216*** (-6.20)	-0.218*** (-5.67)
<i>Linear Combination</i>	0.361*** (17.71)	0.282*** (8.46)	0.359*** (23.28)	0.298*** (17.41)	0.099*** (3.35)	0.376*** (25.39)	0.365*** (18.02)	0.263*** (7.81)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Yes	Logit	Yes	Logit	Yes	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0452	0.0437	0.0813	0.0893	0.0409	0.0512	0.0342	0.0305
<i>Observations</i>	264,280	264,280	264,280	264,280	241,537	264,280	193,954	193,954

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Table 9 (Continued)
Cross-Sectional Variation in Borrower External Monitoring Attributes

Panel B: Change Specification

	<i>New Passive Blockholder Indicator = 1</i>							
	<i>Active Blockholders</i>		<i>Analyst Coverage</i>		<i>Shareholder Rights</i>		<i>Director Expertise</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Non-Zero	Multiple	Non-Zero	Multiple	Low ATP State	Composite SH Rights	Multiple Expert Directors	High Board Expertise
<i>Attribute Main Effect</i>	-1.022*** (-19.59)	-0.922*** (-11.79)	2.080*** (36.56)	2.375*** (44.15)	0.302*** (4.86)	1.027*** (19.66)	1.047*** (15.27)	0.293*** (3.98)
<i>New Loan Indicator</i>	0.064*** (3.42)	0.061*** (3.68)	0.144*** (3.58)	0.159*** (4.54)	0.037** (2.07)	0.0142*** (3.96)	0.124*** (3.70)	0.081*** (3.91)
<i>New Loan Ind. x Attribute</i>	-0.050 (-1.43)	-0.112** (-2.08)	-0.096** (-2.19)	-0.118*** (-3.01)	-0.067 (-1.48)	-0.112*** (-2.82)	-0.106*** (-2.66)	-0.133*** (-3.11)
<i>Linear Combination</i>	0.014 (0.49)	-0.051 (-1.00)	0.049*** (2.85)	0.041** (2.35)	-0.030 (-0.72)	0.029* (1.65)	0.018 (0.85)	-0.053 (-1.40)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0781	0.0774	0.0875	0.0912	0.0800	0.0792	0.0868	0.085
<i>Observations</i>	250,779	250,779	250,779	250,779	230,074	250,779	181,830	181,830

Table 9 examines cross sectional variation in association between syndicated loans and passive equity blockholder positions. Panel A reports regression analyses conducted at the cross-sectional level, in which the dependent variable of interest is an indicator for the presence of a passive equity blockholder, and the explanatory variable of interest is the presence of an outstanding loan. Measures of borrower external monitoring attributes are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$Passive\ Block\ Indicator = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Attribute + \beta_3 Loan\ Indicator \times Attribute + \beta_2 Controls + \beta_2 Controls \times Attribute + Fixed\ Effects + \epsilon$$

Panel B reports regression analyses conducted at the change level, in which the dependent variable of interest is an indicator for the presence of a new passive equity blockholder position established between the start of quarter t and the end of quarter t+3, while the explanatory variable of interest is the presence of a newly issued loan at some point during firm-quarter t. Measures of borrower external monitoring attributes are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Block\ Indicator = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Attribute + \beta_3 New\ Loan\ Indicator \times Attribute + \beta_2 Controls + \beta_2 Controls \times Attribute + Fixed\ Effects + \epsilon$$

Both Panels B and C include additional tests of the sum of coefficients β_1 and β_3 (Linear Combination) with the corresponding t-statistic. All columns are estimated using a pooled logistic regression specification given a binary variable in both cases, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Pooled regression standard errors are robust and adjusted for clustering at the firm level. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 10
Cross-Sectional Variation in Borrower Financial Distress

Panel A: Cross-Section

	<i>Passive Blockholder Indicator = 1</i>				
	(1)	(2)	(3)	(4)	(5)
	Negative Core Earnings	Negative Retained Earnings	Low Interest Coverage	Low Altman Z" Score	High Bankruptcy Risk (Shumway)
<i>Distress Main Effect</i>	-2.243*** (-36.83)	3.234*** (-52.81)	-2.067*** (-29.62)	-1.438*** (-22.49)	-3.228*** (-40.66)
<i>Loan Indicator</i>	0.570*** (37.12)	0.727*** (40.87)	0.730*** (42.28)	0.615*** (33.42)	0.465*** (27.25)
<i>Loan Indicator x Distress</i>	-0.421*** (-14.91)	-0.660*** (-24.29)	-0.417*** (-13.54)	-0.509*** (-17.37)	-0.102*** (-3.25)
<i>Linear Combination</i>	0.149*** (6.23)	0.067*** (3.23)	0.351*** (9.72)	0.106*** (4.58)	0.363*** (13.66)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0538	0.0672	0.0502	0.0528	0.0566
<i>Observations</i>	264,280	255,960	200,973	212,489	240,273

Table Continued on Next Page

Table 10 (Continued)
Cross-Sectional Variation in Borrower Financial Distress

Panel B: Change Specification

	<i>New Passive Blockholder Indicator = 1</i>				
	(1)	(2)	(3)	(4)	(5)
	Negative Core Earnings	Negative Retained Earnings	Low Interest Coverage	Low Altman Z" Score	High Bankruptcy Risk (Shumway)
<i>Distress Main Effect</i>	-1.247*** (-24.00)	-1.051*** (-20.61)	-1.124*** (-18.49)	-0.978*** (-17.55)	-2.355*** (-35.72)
<i>New Loan Indicator</i>	0.067*** (3.84)	0.086*** (4.53)	0.080*** (4.26)	0.089*** (4.29)	0.046*** (2.57)
<i>New Loan Indicator x Distress</i>	-0.070* (-1.73)	-0.111*** (-3.04)	-0.078** (-1.95)	-0.128*** (-3.44)	-0.008 (-0.17)
<i>Linear Combination</i>	-0.003 (-0.08)	-0.025 (-0.79)	0.002 (0.06)	-0.039 (-1.26)	0.041 (1.02)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0808	0.0818	0.0824	0.0810	0.0875
<i>Observations</i>	250,779	242,796	189,983	200,993	227,866

Table 10 examines cross sectional variation in association between syndicated loans and passive equity blockholder positions. Panel A reports regression analyses conducted at the cross-sectional level, in which the dependent variable of interest is an indicator for the presence of a passive equity blockholder, and the explanatory variable of interest is the presence of an outstanding loan. Measures of borrower financial distress are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$Passive\ Block\ Indicator = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Distress + \beta_3 Loan\ Indicator \times Distress + \beta_2 Controls + \beta_2 Controls \times Distress + Fixed\ Effects + \epsilon$$

Panel B reports regression analyses conducted at the change level, in which the dependent variable of interest is an indicator for the presence of a new passive equity blockholder position established between the start of quarter t and the end of quarter t+3, while the explanatory variable of interest is the presence of a newly issued loan at some point during firm-quarter t. Measures of borrower financial distress are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Block\ Indicator = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Distress + \beta_3 New\ Loan\ Indicator \times Distress + \beta_2 Controls + \beta_2 Controls \times Distress + Fixed\ Effects + \epsilon$$

Both Panels B and C include additional tests of the sum of coefficients β_1 and β_3 (Linear Combination) with the corresponding t-statistic. All columns are estimated using a pooled logistic regression specification given a binary variable in both cases, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Pooled regression standard errors are robust and adjusted for clustering at the firm level. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Table 11
Cross-Sectional Variation in Borrower Growth Opportunities

Panel A: Cross-Section

	<i>Passive Blockholder Indicator = 1</i>			
	(1)	(2)	(3)	(4)
	Low Sales/Price Ratio	Low Book-to-Market Ratio	High Tobin's Q	High R&D Intensity
<i>Growth Main Effect</i>	-0.622*** (-10.82)	-0.799*** (-12.67)	-0.886*** (-15.39)	-1.014*** (-12.34)
<i>Loan Indicator</i>	0.593*** (36.98)	0.604*** (38.51)	0.634*** (40.36)	0.681*** (25.52)
<i>Loan Indicator x Growth</i>	-0.746*** (-27.84)	-0.607*** (-21.96)	-0.575*** (-21.57)	-0.854*** (-21.96)
<i>Linear Combination</i>	-0.153*** (-7.05)	-0.003 (-0.11)	0.059*** (2.72)	-0.173*** (-5.99)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Yes	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0442	0.0430	0.0407	0.0586
<i>Observations</i>	264,280	264,280	264,280	138,915

Table Continued on Next Page

Table 11 (Continued)
Cross-Sectional Variation in Borrower Growth Opportunities

Panel B: Change Specification

	<i>New Passive Blockholder Indicator = 1</i>			
	(1)	(2)	(3)	(4)
	Low Sales/Price Ratio	Low Book-to-Market Ratio	High Tobin's Q	High R&D Intensity
<i>Growth Main Effect</i>	0.441*** (8.89)	0.651*** (11.85)	0.717*** (14.80)	-0.303*** (-4.51)
<i>New Loan Indicator</i>	0.072*** (3.94)	0.070*** (3.77)	0.080*** (4.36)	0.086*** (2.79)
<i>New Loan Indicator x Growth</i>	-0.147*** (-4.09)	-0.100*** (-2.82)	-0.127*** (-3.50)	-0.186*** (-3.43)
<i>Linear Combination</i>	-0.074** (-2.40)	-0.030 (-1.00)	-0.047 (-1.50)	-0.099** (-2.23)
<i>Controls + Interactions</i>	Yes	Yes	Yes	Yes
<i>Model</i>	Logit	Logit	Logit	Logit
<i>Specification</i>	Pooled	Pooled	Pooled	Pooled
<i>Fixed Effects</i>	Yes	Yes	Yes	Yes
<i>Adj. (Pseudo) R-Squared</i>	0.0778	0.0777	0.0773	0.0725
<i>Observations</i>	250,779	250,779	250,779	131,182

Table 11 examines cross sectional variation in association between syndicated loans and passive equity blockholder positions. Panel A reports regression analyses conducted at the cross-sectional level, in which the dependent variable of interest is an indicator for the presence of a passive equity blockholder, and the explanatory variable of interest is the presence of an outstanding loan. Measures of borrower growth opportunities are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$Passive\ Block\ Indicator = \beta_0 + \beta_1 Loan\ Indicator + \beta_2 Growth + \beta_3 Loan\ Indicator \times Growth + \beta_2 Controls + \beta_2 Controls \times Growth + Fixed\ Effects + \epsilon$$

Panel B reports regression analyses conducted at the change level, in which the dependent variable of interest is an indicator for the presence of a new passive equity blockholder position established between the start of quarter t and the end of quarter t+3, while the explanatory variable of interest is the presence of a newly issued loan at some point during firm-quarter t. Measures of borrower growth opportunities are included as a covariate, and interacted with both the primary explanatory variable and the suite of control variables. These analyses are conducted at the firm-quarter level and models are estimated using the following baseline specification

$$New\ Passive\ Block\ Indicator = \beta_0 + \beta_1 New\ Loan\ Indicator + \beta_2 Growth + \beta_3 New\ Loan\ Indicator \times Growth + \beta_2 Controls + \beta_2 Controls \times Growth + Fixed\ Effects + \epsilon$$

Both Panels B and C include additional tests of the sum of coefficients β_1 and β_3 (Linear Combination) with the corresponding t-statistic. All columns are estimated using a pooled logistic regression specification given a binary variable in both cases, and include year-quarter fixed effects. We note that limited within-group variation in both our dependent and independent variables of interest undermines the validity of including firm fixed effects. Pooled regression standard errors are robust and adjusted for clustering at the firm level. T-statistics are reported in parentheses, while coefficients marked with ***, **, and * are statistical significance at the 0.01, 0.05, and 0.1 levels, respectively.

Appendix A

Variable Descriptions

Variable	Description	Data Source
Primary Explanatory Variables		
Loan Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter that has an outstanding syndicated loan as of the quarter end, and 0 otherwise.</i>	LoanConnector
New Loan Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter that has a new syndicated loan issued at any point between the start and end of that quarter, and 0 otherwise</i>	LoanConnector
Primary Dependent Variables		
Passive Ownership Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter in which a passive equity blockholder position is outstanding as of the quarter end, and 0 otherwise</i>	SC-13 Filings
Passive Ownership Block Count	<i>Count of the number of passive equity blockholder positions outstanding for a firm-quarter as of the quarter end</i>	SC-13 Filings
New Passive Ownership Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter in which a new passive equity blockholder position was established, and 0 otherwise</i>	SC-13 Filings
New Passive Block Count	<i>Count of the number of new passive equity blockholder positions established during firm-quarter</i>	SC-13 Filings
Net Passive Blockholder Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the Net Passive Blockholder Count Change is a positive value</i>	SC-13 Filings
Net Passive Blockholder Count Change	<i>Measure of the net change in passive equity blockholder positions outstanding, defined as the count of positions at the end of the measurement window less the count of positions at the beginning of the measurement window</i>	SC-13 Filings
Control Variables		
log(Market Value)	<i>Logarithmic transformation of a firm's market value of equity, calculated as the share price multiplied by the number of shares outstanding as of the quarter end</i>	Compustat + CRSP
Tobin's Q	<i>Tobin's Q ratio calculated as the sum of the market value and total assets, less common equity, scaled by total assets as of the quarter end</i>	Compustat + CRSP
Sales Growth	<i>Percentage change in reported sales relative to the previous quarter</i>	Compustat
ROA	<i>Return on assets calculated operating income before depreciation scaled by total assets as of the quarter end</i>	Compustat
Leverage Ratio	<i>Leverage ratio calculated as the different between total assets and common equity scaled by total assets as of the quarter end</i>	Compustat
Amihud Illiquidity	<i>Consolidated measure of stock illiquidity adjusted for open-to-close restricted returns (Barardehi et al. 2021)</i>	Compustat + CRSP
log(Firm Age)	<i>Logarithmic transformation of the number of months between a quarter end and the date on which a firm was first listed on a major public US exchange</i>	Compustat + CRSP

Existing Passive Blockholder Indicator	<i>Indicator variable which takes a value of 1 for a firm-quarter which had at least one passive equity blockholder position outstanding as of the previous quarter end, and 0 otherwise</i>	SC-13 Filings
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Existing Passive Blockholder Count	<i>Count of the number of passive equity blockholder positions outstanding as of the previous quarter end</i>	SC-13 Filings
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Loan Feature Cross-Sectional Variables

Loan Intensity (Upper Quartile)	<i>Indicator variable which takes a value of 1 for a loan with a Loan Intensity (largest facility amount scaled by total borrower assets at the time of issuance) in the upper quartile of the sample for each year-quarter, and 0 otherwise</i>	LoanConnector
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Secured Loan	<i>Indicator variable which takes a value of 1 for a loan with a Loan Intensity (see above) in the upper quartile of the sample for each year-quarter</i>	LoanConnector
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Perf. Pricing Provision	<i>Indicator variable which takes a value of 1 for a loan which includes a performance pricing provision mapped to increasing interest rates or fees, and 0 otherwise</i>	LoanConnector
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Perf. Covenant	<i>Indicator variable which takes a value of 1 for a loan which includes at least one performance covenant as defined by Christensen and Nikolaev (2012), and 0 otherwise</i>	LoanConnector
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Covenant Tightness	<i>Indicator variable which takes a value of 1 for a loan which includes a probability of covenant violation score (covenant tightness) in the upper quartile for the sample distribution, and 0 otherwise</i>	Demerjian & Owens (2016)
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Lender Attribute Cross-Sectional Variables

Low Loan Loss Provisions	<i>Indicator variable which takes a value of 1 for a loan in which the Lender has loan-loss provisions (scaled by total assets) in the bottom quartile of lenders for the quarter in which the loan is issued, and 0 otherwise</i>	FR Y-9C Filings
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High Loan Loss Provisions	<i>Indicator variable which takes a value of 1 for a loan in which the Lender has loan-loss provisions (scaled by total assets) in the upper quartile of lenders for the quarter in which the loan is issued, and 0 otherwise</i>	FR Y-9C Filings
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Low Lending Intensity	<i>Indicator variable which takes a value of 1 for a loan in which the Lender has outstanding loans (scaled by total assets) in the bottom quartile of lenders for the quarter in which the loan is issued, and 0 otherwise</i>	FR Y-9C Filings
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High Lending Intensity	<i>Indicator variable which takes a value of 1 for a loan in which the Lender has outstanding loans (scaled by total assets) in the upper quartile of lenders for the quarter in which the loan is issued, and 0 otherwise</i>	FR Y-9C Filings
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Same-State Lender	<i>Indicator variable which takes a value of 1 for a loan in which the lender is headquartered in the same state as the borrower, and 0 otherwise</i>	LoanConnector
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Industry Specialist	<i>Indicator variable which takes a value of 1 for a loan in which the lender's exposure to the borrowers industry (as measured by loans outstanding in that industry scaled by total loans outstanding) is 1.5 x IQR greater than the 75th percentile for all lenders with loans outstanding in that industry, and 0 otherwise</i>	FR Y-9C Filings
Regional Bank	<i>Indicator variable which takes a value of 1 for a loan in which the lender is classified as a "Regional Bank" by the US Federal Reserve, identified as having total assets between \$1 Billion and \$10 Billion, and 0 otherwise</i>	FR Y-9C Filings
Relationship Lender	<i>Indicator variable which takes a value of 1 for a loan issued by a lead arranger (or at least one lead arranger) which also served as a lead arranger on a loan issued to the same borrower within the five years preceding the issuance date, and 0 otherwise</i>	LoanConnector

Borrower Financial Distress Measures

Negative Core Earnings	<i>Indicator variable which takes a value of 1 for a firm-quarter in which reported core earnings is negative, and 0 otherwise. Core earnings are defined as income before extraordinary items, adjusted for special items on a pre-tax basis</i>	Compustat
Negative Retained Earnings	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has a negative retained earnings balance as of the quarter-end, and 0 otherwise</i>	Compustat
Low Interest Coverage	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has an interest coverage ratio of less than 1.0, and 0 otherwise. Interest coverage ratio is defined as earnings before interest expense divided by interest expense</i>	Compustat
Low Altman Z" Score	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the calculated Altman Z" Score falls in the lower quartile of the sample for that quarter, and 0 otherwise. The Altman Z" Score is computed as: $6.5(\text{Working Capital}) + 3.26(\text{Retained Earnings}) + 6.72(\text{EBIT}) + 1.05(\text{Book Value of Equity})$, with all firm measures scaled</i>	Compustat, Altman (1993)
High Bankruptcy Risk	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the calculated Shumway Bankruptcy Risk score falls in the upper quartile of the sample distribution for that quarter, and 0 otherwise. The Bankruptcy Score is estimated following the methodology laid out in Shumway (2001)</i>	Compustat, CRSP, Shumway (2001)

Borrower High Growth Measures

Low Sales/Price Ratio	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has a Sales-to-Price ratio in the lower quartile of the sample distribution for that quarter, and 0 otherwise</i>	Compustat
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Low Book-to-Market Ratio	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has a Book-to-Market ratio in the lower quartile of the sample distribution for that quarter, and 0 otherwise</i>	Compustat
High Tobin's Q	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has a Tobin's Q Value in the upper quartile of the sample distribution for that quarter, and 0 otherwise</i>	Compustat
High R&D Intensity	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the reporting firm has Research & Development expenses (scaled by total assets) in the upper quartile of the sample distribution for that quarter, and 0 otherwise</i>	Compustat

Borrower External Monitoring

Non-Zero Active Blockholders	<i>Indicator variable which takes a value of 1 for a firm-quarter in which at least one active equity blockholder position is outstanding as of the quarter end, and 0 otherwise</i>	SC-13 Filings
Multiple Active Blockholders	<i>Indicator variable which takes a value of 1 for a firm-quarter in which strictly more than one active equity blockholder position is outstanding as of the quarter end, and 0 otherwise</i>	SC-13 Filings
Non-Zero Analyst Coverage	<i>Indicator variable which takes a value of 1 for a firm-quarter in which at least one analyst forecast has been reported, and 0 otherwise. Analyst forecasts are identified as those issued within the preceding 180 day period related to any reporting period in the subsequent four (4) quarters</i>	I/B/E/S
Multiple Analyst Coverage	<i>Indicator variable which takes a value of 1 for a firm-quarter in which strictly more than one analyst forecast has been reported, and 0 otherwise. Analyst forecasts are identified as those issued within the preceding 180 day period related to any reporting period in the subsequent four (4) quarters</i>	I/B/E/S
Low ATP State	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the firm is subject to 2 or fewer state-level anti-takeover provisions as of the quarter end, and 0 otherwise</i>	Guernsey, Sepe, & Serfling (2022)
Composite Shareholder Rights	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the firm satisfies at least one of the criteria for high shareholder rights, and 0 otherwise:</i> <ul style="list-style-type: none"> · Non-Classified Board Structure · Below Industry Median CEO Compensation · CEO-Chairman Duality 	BoardEx, ExecuComp, Guernsey, Sepe, & Serfling (2022)
Multiple Expert Directors	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the board of directors includes strictly more than one financial expert director, and 0 otherwise</i>	BoardEx
High Board Expertise	<i>Indicator variable which takes a value of 1 for a firm-quarter in which the relative percentage of financial expert directors as a portion of the total board is in the upper quartile of the sample for that quarter, and 0 otherwise</i>	BoardEx