Investor Relations and Private Debt Markets

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Abstract

We study whether investor relations (IR) is relevant in private debt markets. We find that firms with dedicated IR officers (IRO) have 7.6% (11 bps) lower spreads after controlling for common determinants of spreads and firm disclosure. The association is strongest when information asymmetry between the borrower and lenders is high and when there are higher levels of financial distress. Restricting the sample to only firms that have a dedicated IRO, we find that those with long-tenured IROs have 6.3% (8 bps) lower spreads than those with short-tenured IROs. The magnitude of the relation between IRO tenure and spreads is larger for firms with lender-focused IR, and when the IRO shares a finance-related role within the firm. We also find that spreads increase when there is IRO turnover. Our evidence suggests that the relevance of IR in private debt markets arises through both public and private information channels.

1. Introduction

Prior research has suggested various capital market benefits of investor relations (IR) activities including higher firm visibility, increased institutional ownership, greater analyst following, higher valuation, lower cost of capital, and improved information processing (Kirk and Vincent 2014, Bushee and Miller 2012, Chapman et al. 2019, Reiter 2021, Brochet et al. 2022, Kim et al. 2021). An IR officer (IRO), a key figure in these activities, oversees corporate disclosure and manages interactions with analysts and investors through various public and private channels (Brown et al. 2019). The IRO also ensures compliance with relevant disclosure regulations and prohibitions against disclosing material non-public information (i.e., Reg FD). Prior literature documents the aforementioned benefits of IR exclusively in public markets, which are characterized by a large, heterogenous and changing set of investors with potentially differing objectives, time horizons, and information demands. However, the role of IR within private loan markets remains largely unexplored. Our paper seeks to fill this gap.

Private markets, such as those for bank loans, typically involve a small group of capital providers who seldom change and are more likely to have similar investment horizons and information demands. Additionally, because Reg FD does not apply to private lenders, they have relatively unconstrained access to material private information from borrowers, including frequent and direct updates from senior managers. These differences raise the question of the relevance of IR in private debt contracts. On the one hand, given the significant differences in what information is demanded and allowed to be shared in public and private markets, an IRO may be ineffective or even counterproductive as an information intermediary for private lenders. Moreover, because treasurers, CFOs, and other non-IR managers often manage banking relationships, IR may be entirely extraneous to private lending.

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On the other hand, prior literature and anecdotal evidence suggest two channels through which IR may play a role in private lending. First, IR programs can enhance public information about the firm in ways that help private lenders regardless of their access to private information from managers. IR teams play an important role in synthesizing the overall firm narrative, explaining past performance, and setting future expectations within the context of long-term objectives (Brown et al. 2019). This narrative role not only enhances external communications overall, but also increases the consistency of corporate messaging, particularly as they become ingrained in how managers communicate with capital providers. Moreover, IROs consistently receive a steady stream of feedback about the firm and its external perception through public information channels. This ongoing feedback may enable managers to provide more useful information to private lenders, especially since their questions and concerns are likely correlated with those of public (debt) investors. Finally, IR activities may affect media and analyst coverage, which may in turn influence lenders' assessment of the firm. In these ways, public information channels can have positive spillover effects for private lenders, resulting in better private loan outcomes. Enhanced public information through IR also potentially complements private information because consistency across both the public channel and the private information collected may improve the credibility of information.

A second channel through which IR may influence private lending is the direct exchange of private information. IR teams have skills and information that are highly relevant for private lenders, thus creating a compelling incentive for managers to involve IR professionals in interactions with these lenders. For example, IR teams' frequent private interactions with public market investors likely equip them to be more effective in private interactions with lenders, enabling a better understanding and response to their inquiries and concerns (Brown et al. 2019).

Additionally, the responsibility of an IRO to create investor presentations logically positions them as suitable candidates for preparing or reviewing presentations intended for lenders before meetings – a common form of interaction between firms and private lenders. This supports the existence of direct private information channels between IROs and private lenders, even if the central focus of an IR program is public investors. The plausibility of a direct private channel is corroborated by the job descriptions of several IROs on LinkedIn, which explicitly mention interactions with lenders. For example, one IRO job description states: "Partnered with CFO and Treasurer to reduce cost of capital (equity and debt) by optimizing capital structure, dividend policy, and investments as well as ensuring investors/lenders/rating agencies fully understand risk profile."[1]

Considering both private and public channels, we examine the effect of IR on private debt markets using a sample of 15,639 syndicated loans issued between 2003 and 2015. We focus our analysis on loan spreads due to their importance to borrowers and their reflection of default risk and information asymmetry from the lenders' perspective (e.g., Graham et al. 2008). Our primary variable of interest is an indicator variable for firms with a dedicated IRO (i.e., *IR Firm=1),* as opposed to those without an IRO. We find that firms with dedicated IROs have 7.6% lower spreads (equivalent to 11 basis points) after controlling for common determinants of spreads and firm disclosure. To ensure that we attribute this effect to IR, incremental to the influence of disclosure as suggested by prior research, we control for factors such as managerial guidance, disclosure frequency (the number of 8K filings), disclosure length (10K length), and financial reporting quality. We also control for differences in the broader information environment, such as analyst coverage, which is associated with IR and has been shown to influence loan outcomes (Bushee

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1 We provide more examples of IROs' job descriptions that reference interactions with lenders in Appendix A.

and Miller 2012, Hallman et al. 2022, Bushman et al. 2017). These controls allow us to distinguish the effect of IR from the direct effect of other related factors that are known to affect private loan outcomes.

Next, we conduct a series of cross-sectional analyses intended to support our inference that IR, rather than other factors, offers the most plausible explanation for lower loan spreads. Our first cross-sectional analyses consider information asymmetry because prior literature suggests that IR has a role in mitigating information asymmetry and reducing uncertainty in public markets (Chapman et al. 2019, Brochet et al. 2022). To the extent that IR reduces loan spreads by reducing information asymmetry between the borrower and lenders, we expect a larger reduction in loan spreads when the information asymmetry is high. Using the borrower's prior lending relationship with both the lead arranger and participants, as well as the lenders' country of domicile as proxies for information asymmetry, we find evidence consistent with this prediction. The association between IR and spreads is higher when the lead arranger is based abroad or when there is a higher proportion of foreign to domestic participant lenders.

Next, we consider the effect of a borrower's financial distress. Private lenders typically increase their scrutiny when the risk of bankruptcy increases (e.g., Dahiya et al. 2003). By providing helpful information and aiding information assimilation, IR helps capital providers better interpret current events and anticipate future events when uncertainty is high (Chapman et al. 2019). As such, we expect a stronger association between IR and loan spreads when bankruptcy risk is elevated. Our results are consistent with this prediction.

We next conduct several tests to investigate the effect of IR on private loans through the public information channel. To the extent that IR is associated with lower loan spreads because of better public communications, we would expect our main results to be concentrated among firms with

higher disclosure. We test this prediction using management guidance frequency, 10-K length, and the number of 8-Ks as measures of firm disclosure. We find significantly negative associations between IR and loan spreads for both low and high disclosure subsamples across the three measures, but the relationships are significantly stronger for firms with more frequent guidance and shorter 10-Ks. The coefficients across low and high number of 8-K subsamples are not statistically different from one another. These results are consistent with IR influencing loan spreads through firm disclosures but potentially through other channels as well, as suggested by the significant IR coefficients even when disclosures are low.

Another public information channel possibly linking IR to private loans are information intermediaries such as the media and financial analysts. Consistent with the notion of the media being an important source of public information for private lenders (Bushman et al. 2017), and a common area of improvement with IR programs (Bushee and Miller 2012, Kirk and Vincent 2014, Solomon, 2012), we find that the association between IR firms and loan spreads is significantly more negative for firms with high media sentiment.

We next conduct several tests to investigate the effect of IR on private loans through the private information channel. To this end, we restrict our sample to firms that have IR and we use an indicator variable for firms with a long-tenured IRO, as opposed to a short-tenured IRO, as our proxy for the private information channel (*High Tenure IRO*). The rationale behind this proxy is that public information is the dominant difference between firms with and without a dedicated IRO, given the objectives of a professional IR program are closely tied to improving public disclosures (Brown et al. 2019). Additionally, disclosure quality (i.e., the public information channel) is largely a function of institutional practices and norms that are relatively time-invariant and that change with significant shifts in disclosure policy, such as around the hiring of a dedicated

IRO. This proxy reflects the quality of private information because it varies with the individual in the IRO role and therefore captures that person's unique impact on the information flow with private lenders. Private communications from the IRO are more informative with IRO tenure because each IRO develops professional expertise, relationships, and trust with capital market participants over time (Chapman et al. 2022).[2]

We find that firms with long-tenured IROs have 6.3% lower spreads (equivalent to 8 basis points) than those with short-tenured IROs. We then examine whether the negative association between IRO tenure and spreads is more pronounced for firms whose IROs share a finance-related position (i.e., investment, treasury, finance). This analysis is motivated by the intuition that IROs who are also in finance roles are more likely to communicate with lenders effectively and privately. We find that the association between IRO tenure and spreads is three times larger for the subsample of firms with an IRO who also has finance-related responsibilities based on their title (e.g., "Director of IR and Treasury").

To further explore the private information channel, we examine whether the association between IRO tenure and spreads is stronger when the IRO is relatively more lender focused, and thus more likely to be helpful in its firm's interactions with private lenders. We use lender-focused narrative in conference call transcripts to proxy for more lender-oriented IROs because transcripts are drafted by IR teams and therefore reflect their lender orientation. We find that firms that mention their lenders during conference calls have a stronger negative association between IRO tenure and loan spreads, consistent with the private information channel benefiting loan outcomes when IROs are more lender focused. As a second proxy for IR lender orientation, we use a firm's

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2 In untabulated results, we validate our arguments by showing differences in the frequency of management forecasts, length of 10-Ks and financial reporting quality are larger between IR and no IR firms than between long-tenured IRO and short-tenured IRO firms.

prior participation in debt investor conferences and find that the negative association between IRO tenure and spreads is stronger for firms that have attended such events.

The previous results are consistent with IR reducing loan spreads through better private information. However, one possible alternative explanation is that it is overall IR experience, and not necessarily better private information per se that is driving the previous results. We explore the effect of overall IR experience by testing the association between loan spreads and previous IR experience at other firms. To the extent that our previous results are attributable to greater overall IR experience rather than private information conveyed at the current firm, we would expect a negative association between previous IR experience and loan spreads. We fail to find evidence of this association. This finding supports the idea that firm-specific knowledge and relationships formed within the firm over time impact the information flow from IROs to lenders. We interpret this as broadly supporting our previous inference that the association between IRO tenure and loan spreads is most likely attributable to better private information.

The public and private channels of IR are inherently difficult to empirically disentangle because of the unobservable nature of private communications. With this caveat in mind, collectively our evidence suggests that IR influences private loan pricing through both public and private communication channels. In additional tests, we also provide evidence that firms with dedicated IROs not only have lower cost of borrowing but also less restrictive contract terms, such as collateral and performance covenants.

We acknowledge that the choice of whether to have a dedicated IRO is clearly endogenous to the firm. To mitigate omitted variable bias concerns, we perform four additional tests. First, we employ an entropy balancing technique and find that our results are robust to matching IR and non-IR observations on observable characteristics likely to predict the choice of adopting IR.

Second, we document that our results on the association between dedicated IROs and spreads are robust to the inclusion of lender, borrower, and lender-borrower fixed effects which helps rule out time-invariant omitted variables. Third, we show that, after restricting to borrowers who have at least one observation before and after a change in IRO, the association between spreads and IR tenure holds when using a setting of IRO turnover. Fourth, we show that even though spreads increase when the IRO changes, firm disclosures or media sentiment do not decrease around IRO turnover.

Our results contribute to the IR literature by suggesting a beneficial association between IR and loan pricing through both private and public information channels. Defining disclosure in a broad sense, our results also demonstrate another dimension (IR) through which disclosure practices influence private loan contracts. Exploring the role of IR in private loan markets is different from prior literature, which has examined IR exclusively in public markets, predominantly in public equity markets (Bushee and Miller 2012, Kirk and Vincent 2014, Chapman et al. 2019, Reiter 2021, Brochet et al. 2022). Two exceptions are recent papers by Kim et al. (2021) and Choy et al. (2023) that examine the role of IR in public debt markets. Specifically, Kim et al. (2021) conduct an event study on changes in credit default swap (CDS) spreads around earnings announcements. They find that firms with IR personnel on the earnings conference call have less pessimistic (more optimistic) changes in CDS spreads around negative (positive) earnings news. Choy et al. (2023) study how fixed income conference calls and conference presentations impact public debt restructuring outcomes for financially distressed firms. They find that these conference calls and presentations are positively associated with the likelihood of undergoing public debt restructuring over inaction or pursuing a Chapter 11 bankruptcy process.

Our study differs from Kim et al. (2021) and Choy et al. (2023) along the following dimensions. First, we explore the role of IR in reducing information frictions between private lenders as opposed to public lenders. The private syndicated loan and public CDS or bond markets have different structures, informational characteristics, and investment time horizons. Thus, inferences from the public debt markets may not generalize to private loans. Second, while the main focus of Kim et al. (2021) lies on whether IR moderates the information processing of public earnings news by CDS traders, our main focus is on the potential for IROs to shape public and private firm communications, influencing the behavior of private debt market participants. Third, our paper explores variations in firms with IR. In addition to classifying firms into those with IR and without IR, which is similar to the measure used in Kim et al. (2021), we develop a richer dataset of IR that includes IRO's tenure, prior IR experience, turnover, and finance-related positions. Utilizing this data, we find that the association between IR activities and loan pricing varies with IRO characteristics according to our predictions. These results support our argument that private information varies with the individual in the IRO role and therefore captures that person's unique impact on the information flow with private lenders. Finally, we examine whether IR affects other debt contracting terms, such as collateral, performance covenants, and lead-lender loan allocation.

We also contribute to the literature on information intermediaries. Intermediaries play a crucial role in helping investors allocate capital by aggregating, summarizing, and supplementing firm disclosure. Prior research shows various capital market effects of intermediaries such as analysts, the media, and IR programs. The role of information intermediaries has been studied extensively in arm's-length capital markets (i.e., markets for publicly traded securities). However, prior literature about the role of intermediaries in relationship-based capital markets is limited to the role of the media and sell-side analysts in the market for private debt (Bushman et al. 2017,

Hallman et al. 2022). We extend this literature by exploring the role of an information intermediary within the firm (i.e., IROs) in relationship-based capital markets.

2. Motivation and Related Literature

Lenders in syndicated loans collect information about potential borrowers to mitigate information asymmetry problems. The bank leading the loan syndicate ("lead arranger") leads this process and disseminates information to other banks who may join the loan syndicate and become participants, and who may also independently collect information about potential borrowers. Information related to the borrower's expected future performance is particularly salient in this process. Based on their assessments of the borrower, the lead arranger sets initial loan pricing and contract terms. The lead arranger retains a portion of the loan, acts as an organizer and manager of the group of banks issuing the loan ("loan syndicate") and remains primarily responsible for ex ante due diligence as well as for ex post monitoring of the borrower (e.g., Lee and Mullineaux 2004, Sufi 2007, Ivashina 2009). Lenders access information about potential borrowers from various sources including private information directly from the borrower and forecasts of future performance that are not publicly disclosed. Lenders interact directly with senior managers of borrower including C-level executives, leaders of the treasury function and, we contend, IR teams.

IROs are senior managers responsible for supervising and implementing firm disclosure, interacting with analysts and investors, speaking on behalf of the firm, and carrying out investor outreach with a primary audience of public investors (Brown et al., 2019). Anecdotal evidence suggests these practices may benefit private lenders by providing additional information, better communications and/or signaling about management competence.

Additional information becomes available to private lenders when enhanced public disclosure through IR programs combines with private information acquired directly from the firm. IR teams

also receive feedback from public investors that can motivate the firm to enhance public disclosure, thereby further increasing information available to private lenders. In these ways, IR can provide higher quality information to private lenders through the public information channel.

Communication benefits arise as IR teams emphasize consistent messaging across all firm communications (i.e., "speaking with one voice") to help investors synthesize the overall firm narrative, explain past performance, and set future expectations within the context of long-term objectives (Brown et al., 2019). These practices build competencies within the management team which are likely to improve communications with private lenders. Holding the information set constant within the firm, IR plays a role by potentially increasing how well that information is processed and impounded by private lenders when making assessments of the firm.

Another possible benefit of IR is the signaling benefits that could arise as private lenders infer the competence of management based on their implementation of private and public disclosure. An important dimension that is assessed in the lending process is management quality (Koch and McDonald 2014). Given the difficulty in assessing management quality because of limited visibility into management behavior, a potential indicator of management quality is the disclosure practices of the firm. As lenders observe a potential borrowers' public and private disclosure practices, they can use the competence of the disclosures to make broader inferences about management ability, which would in turn influence loan terms and pricing.

IR programs may also influence private lending through the direct private information given to lenders in the contracting process. IR teams have skills that are highly relevant for communicating firm information to outside parties (listening to investors, addressing their concerns, describing the firm in ways external parties can understand, etc.). Moreover, IROs ensure consistency in messaging and regulatory compliance. Given the active communication between a potential lender

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and management, managers therefore have incentives to include the IRO in private lender interactions to ensure there is clear and consistent communication. While the involvement of the IRO in the debt contracting processes is unobservable, anecdotal evidence provides some examples. For instance, Waste Management, Inc. described their effort to integrate IR with private lenders in their first quarter of 2004 earnings conference call: "We think that closely tying together treasury and investor relations departments will allow us to leverage our communications with all our investor communities, shareholders, equity analysts, bondholders and analysts, and the bank". To provide additional anecdotal evidence of direct interactions between IR officers and private lenders, we collect relevant job descriptions from the public profiles of IROs on LinkedIn which are provided in Appendix A. We also note that there is a subset of IROs who also have responsibility for treasury functions; these IR officers are significantly more likely to interact with private lenders on a regular basis.

3. Sample, Data, and Descriptive Statistics

We collect data on syndicated loans from the DealScan database provided by the Thomson Reuters Loan Pricing Corporation (TRLPC). Table 1 presents our sample selection process, which starts with all syndicated loans issued to U.S. public borrowers from 2003 to 2015. This period reflects the availability of data on firms with IROs at the time of our study. We follow prior research and identify the lead arranger as the lender whose lead arranger credit information states "Yes" or whose role has been specified as Admin Agent, Agent, Arranger or Lead Bank in DealScan (e.g., Chen and Vashishtha 2017). We classify borrowers as IR firms by collecting all available earnings conference transcripts from the Reg FD newswire service available through Factiva and identifying firms with an IRO listed on the call. Following Chapman et al. (2019), we exclude firms with fewer than 15 quarterly observations across the entire sample, and observations

in which IRO tenure is less than one year. Using the IR data, we flag loan facilities where the borrower has a dedicated IRO at least six months prior to the issuance of a loan. We choose a 6-month period because this is approximately how long it takes for borrowers to complete the loan syndication process (Bushman et al. 2017). We use data from Compustat, CRSP, IBES, IBES Guidance and RavenPack for the creation of various measures. After excluding facilities with insufficient loan and firm data needed for our main empirical specification, our primary sample consists of 15,639 lead-facility pairs.

Panel A of Table 2 presents descriptive statistics for all the main variables. Variables are defined in Appendix B. 47% of the observations in our sample are from firms with a dedicated IRO and IRO tenure is on average 4.5 years (i.e., 18.45 quarters). Panel B of Table 2 shows distributional differences for IR vs. non-IR observations. Borrowers with an internal IR function receive significantly larger loans and better loan price terms as well as non-price terms (i.e., collateral and performance covenants). These IR firms are also more likely to issue management forecasts, have longer 10Ks, and higher financial reporting quality. In terms the characteristics of lenders, syndicated loans to IR firms have more relationship lead arrangers and a higher proportion of relationship participants. IR firms also have more foreign lead arrangers and a higher proportion of foreign participants.

4. Empirical Specifications and Results

4.1. Investor Relations and Loan Pricing

We first examine the association between IR and loan pricing, measured as the loan interest spread, by estimating the following OLS model at the facility-lead level:

$$Spread = \alpha + \beta_1 IR\ Firm + \theta Controls + Industry\ FEs + Year\ FEs + Purpose\ FEs + \epsilon \quad (1)$$

where *Spread* is the logarithm of all-in-drawn spread in basis points. *IR Firm* is an indicator variable equal to 1 if the borrower has a dedicated IRO during the six-month period preceding the loan issuance date and 0 otherwise. We posit that dedicated IROs benefit private loan pricing by reducing information asymmetry between borrowers and lenders, resulting in lower spreads. Thus, we predict a negative coefficient on our main variable of interest, *IR Firm*. We control for various factors that prior research suggests are associated with loan pricing, such as borrower's profitability (*ROA*), interest coverage ratio (*Interest Coverage*), leverage (*Leverage*), the natural logarithm of the book value of total assets (*Size*), and the market-to-book ratio (*MTB*). We also control for whether the lead arranger and the borrower have a prior lending relationship. *Lead-Borr Rel* is an indicator variable equal to 1 if a loan's lead arranger has issued more than 50% of the borrower's prior loan deals by volume over the five years preceding the loan issuance date and 0 otherwise.[3] We further include alternative sources of information about the borrower, including whether the borrower is rated (*Rated*), analyst coverage (*Analyst Following*), management forecasts (*Management Guidance*), frequency of 8Ks (*#of 8Ks*), length of 10Ks (*Length of 10K*), and financial reporting quality (*Financial Reporting Quality*). Moreover, we include loan characteristics, such as the natural logarithm of facility amount (*Amount*), maturity (*Maturity*), whether the loan is a revolving line of credit (*Revolver*), whether the loan is a term loan B or below (*Term Loan B*), and the existence of performance pricing provisions (*PP*). We include industry, year, and purpose fixed effects and cluster standard errors at the firm level.

We present our main findings in Table 3. Consistent with our prediction, we find a lower cost of borrowing for IR firms. As our dependent variable is the natural logarithm of the interest rate spread, the coefficient on *IR Firm* implies that the cost of borrowing for IR firms is 7.6% lower

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3 Our results are robust to defining *Lead-Borr Rel* as an indicator variable equal to 1 if a loan's lead arranger has issued a loan to the borrower during the five-year period preceding the loan issuance date and 0 otherwise.

than that of non-IR firms. This translates into approximately 11 basis point lower loan spreads for IR firms, which we contend is economically significant.

With respect to control variables, we observe a negative relation between the loan spread and borrower profitability and size. Loss firms and highly leveraged borrowers receive higher interest rates. There is a negative relation between the spread and loan size. Revolvers are priced at lower rates while institutional loans (i.e., Term Loans B or below) are priced at higher rates, consistent with prior studies (Harjoto et al. 2006, Nandy and Shao 2010, Lim et al. 2014). Borrowers receive lower interest rates when their loans are issued by relationship lenders. Our analyses also suggest that analyst coverage is negatively associated with the loan spread. The coefficient on *Management Guidance* is negative and significant, consistent with prior research suggesting that firms' forward-looking information reduces information asymmetry between lenders and borrowers (e.g., Demerjian et al. 2020). The *Length of 10K* is positively associated with spreads, suggesting that disclosure complexity may increase private loan pricing. The coefficient on *Financial Reporting Quality* is significantly negative, consistent with the idea that accounting quality lowers the cost of debt.

4.2 Information Asymmetry between Borrower and Lead Lender

We next examine whether IR is more helpful when there is greater information asymmetry between the lead lender and the borrower. Since prior research suggests that lenders accumulate information about their borrowers through repeated lending (e.g., Boot 2000, Bharath et al. 2009), we expect IR to play a more important role when loans are issued by non-relationship lenders who have less knowledge about the borrower. Moreover, because empirical evidence suggests that more culturally distant lead banks offer borrowers loans with a higher interest rate (e.g., Giannetti

and Yafeh 2012), we predict that IR may be more helpful when the contracting parties are from different countries.

We test these predictions by partitioning our sample along two dimensions: (1) prior lending relationship between the borrower and lenders and (2) whether the lender is foreign. We define non-relationship lead lenders as those who have issued less than 50% of the borrower's prior loan deals by volume over the five-year period preceding the loan issuance date. *Foreign Lead Lender* equals to 1 if the lead bank is a non-US lender and 0 otherwise. We estimate Equation (1) on each of the partitioned samples and compare the coefficient estimates on *IR Firm* across the partitions.

We report our findings in Panel A of Table 4. Columns (1) and (2) present the results for the lending relationship partitions. We find significantly negative coefficients on *IR Firm* for both the non-relationship lender partition and the relationship lender partition. Although the magnitude of the coefficient is larger for the non-relationship partition, the differences in coefficients across subsamples is not statistically significant at traditional levels.[4]

In Columns (3) and (4) we present the results for the foreign lead lender partition. The coefficients on *IR Firm* in Panel A are significantly negative in both partitions. As predicted, the magnitude of the coefficient is statistically larger for the foreign partition in Column (4). This finding is consistent with public information through IR reducing information asymmetry when there is less familiarity between the borrower and lead lender. The coefficient values imply 14% lower borrowing costs for IR firms when the lead lender is foreign and 5.7% lower when the lead lender is domestic.

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[4] We use bootstrap procedures to test the difference in the coefficients. To illustrate, we randomly assign sample observations to one of the two partitioned groups, estimate Equation (1) for the pseudo groups separately, and compute the difference in coefficients for these groups. We repeat this process 1,000 times to form a null distribution for the difference in coefficients and determine the statistical significance of the difference in coefficients reported in the table.

4.3 Information Asymmetry between Borrower and Participants

In syndicate lending, information asymmetry also exists between the borrower and syndicate participants. In this section, we investigate whether IR is more helpful when the degree of information asymmetry between the borrower and participants is higher. Similar to Panel A of Table 4, we measure this degree of information asymmetry using the proportion of relationship participants, which is measured as the number of relationship participants divided by the total number of syndicate participants, and the proportion of foreign participants, which is defined as the number of non-US participants divided by the total number of participants. A participant is considered a relationship participant if the participant has been involved in a deal with the borrower over the five years preceding the loan issuance date. We expect that IR plays a more significant role when there are fewer relationship participants in the syndicate and when more participants are foreign. To test these predictions, we partition our sample at the median for both proxies.

We report our findings in Panel B of Table 4. Similar to Panel A, we find significantly negative coefficients on *IR Firm* for both the low and high relationship partitions. Although the magnitude of the coefficient is larger for the low relationship partition, the differences in coefficients across subsamples is not statistically significant at traditional levels. In terms of the domicile of participants, while the coefficient on *IR Firm* is negative for both low and high foreign participants subsamples, it is only statistically significant for the high proportion of foreign participants partition (significant at the 1% level). The difference between the coefficients in the low and high partitions is significant at the 1% level. Overall results from Table 4 are consistent with IR alleviating home bias and reducing information asymmetry steaming from lack of familiarity and geographical distance between borrower and lenders.

4.4 Investor Relations and Borrower's Financial Distress

When the risk of financial distress is elevated, firms have incentives to mitigate lender concerns by communicating effectively about their current and expected financial condition and performance. Based on this intuition, we predict that the link between IR and the cost of borrowing will be more pronounced when the borrower is financially distressed. To test our prediction, we use Altman's (1968) bankruptcy measure (Altman Z-score) as well as the level of leverage to proxy for borrower financial distress. The higher (lower) the Altman Z-score (leverage) is, the less likely that the firm will go bankrupt. We define our partitioning variables, *Bankruptcy Risk -High* and *Leverage - High*, as indicator variables equal to 1 if the borrower's Altman Z-score (Leverage) is below (above) the sample median and 0 otherwise.

We report our results in Table 5. The coefficient on *IR Firm* is statistically significant for the high financial distress partition, but insignificant for the less distressed borrower partition. For the high financial distress subsample, having a dedicated IR function is associated with a 7.3% decrease in the interest spread. The difference between the *IR Firm* coefficients is statistically significant. Similarly, the coefficient on *IR Firm* is negative and significant for both high and low leverage subsamples, but statistically larger for highly leveraged firms.

Overall, our findings are consistent with IR mitigating the risk of financial distress. These findings also help address the potential concern that lower spreads for IR firms are attributable to the fact that IR firms are simply more creditworthy. In other words, our early results may reflect an omitted firm characteristic related to the firm's financial health. The findings in Table 5 suggest the opposite; IR seems to benefit financially stressed firms the most.

4.5 Public Channels: Firm Disclosures and the Information Environment

Next, we conduct several tests exploring the private and public information channels of IR. One public channel possibly linking IR and private loans is firm disclosure. Prior research suggests that firm disclosure is negatively associated with borrowers' cost of debt by reducing the degree of information advantage possessed by informed lenders against uninformed lenders (e.g., Rajan 2002; Bushman et al. 2017). In the syndication process, information asymmetries can arise between lenders that have a relationship with a borrower (i.e., relationship lenders) and less informed, non-relationship lenders competing to serve as lead arranger on a syndicated loan. Relationship lead lenders can get inside information about the borrower's business and establish private lines of communication with managers through repeated interactions (e.g., Boot 2000, Bharath et al. 2009). Being informationally disadvantaged, non-relationship lenders' willingness to compete against relationship lenders is influenced by a borrower's public disclosure (e.g., Rajan 2002; Bushman et al. 2017). Therefore, when borrowers provide more public information to outsiders, non-relationship lenders may be willing to bid more aggressively against relationship lenders to win a loan deal, putting downward pressure on interest rate spreads.

To the extent that IR is associated with lower loan spreads because of better public communications, we would expect our main results to be concentrated among firms with higher disclosure. We test this prediction using management guidance, length of 10-K, and number of 8-Ks as measures of disclosure and partition our sample into firms with high and low disclosure based on the sample median for each of the variables.

We present our results in Table 6 Panel A. We find that IR is negatively and significantly associated with loan spreads for firms with both low and high guidance, but this relation is significantly stronger for the subsample of firms with higher guidance. With respect to the length

of 10-Ks, we find that IR is negatively and significantly associated with loan spreads for firms with both shorter and longer 10-Ks, but surprisingly this relation is significantly stronger for the subsample of firms with shorter filings. Given evidence from Table 3 suggesting a positive association between 10-K length and spreads, a possible explanation is that by summarizing and synthesizing information in 10-Ks, IROs reduce lenders' processing costs leading to lower spreads. Regarding the number of 8-Ks, we find that IR is negatively and significantly associated with loan spreads for firms with both low and high 8-K disclosures, but this time the difference in coefficients across subsamples is not statistically significant. Overall, the findings from Table 6 Panel A are consistent with IR influencing spreads through the public disclosure channel, but potentially through other channels as well.

Another public channel possibly linking IR to private loans are information intermediaries such as the media and financial analysts. Bushman et al. (2017) document that the sentiment of media articles influences the loan origination and participation decisions of informationally disadvantaged lenders, loan syndicate structures, and interest rate spreads. Prior studies suggest that IR is positively associated with media coverage and the average sentiment of media articles (e.g., Bushee and Miller 2012, Kirk and Vincent 2014, Solomon 2012).

We thus predict that higher media sentiment is a channel linking IR and private loan spreads. We test this prediction by partitioning our sample into firms with high and low media sentiment. *Media Sentiment – High* is an indicator variable equal to 1 if a firm's average Composite Sentiment Score (CSS) over the 6 months prior to the loan issuance date is above the sample median during the year and 0 otherwise. We present our results in Panel B of Table 6. While the coefficient on *IR Firm* is negative for both subsamples, it is only statistically significant for the high media sentiment

partition. This result is consistent with the media being a public information channel linking IR and private debt markets.

We proceed by investigating the role of financial analysts in the association between IR and spreads. Hallman et al. (2022) hypothesize and find evidence suggesting that analyst research alleviates information asymmetries between lead arrangers and participant lenders within a syndicate, increasing the participants' credit supply and reducing the required loan interest spread. Prior literature on investor relations document a positive association between IR and analyst following (e.g., Bushee and Miller 2012, Kirk and Vincent 2014). We thus predict that higher analyst following is a channel linking IR to syndicate loan spreads. We test this prediction by partitioning our sample into firms with high and low analyst following. Columns 3 and 4 of Panel B of Table 6 present the results. We find that the association between IR and spreads is significantly negative for both low and high analyst following subsamples. Although the coefficient is larger for the high analyst following subsample, the difference across coefficients is not statistically significant at traditional levels with a p-value of 0.107. Thus, we cannot conclude that analyst following is a primary channel linking IR to loan spreads.

4.6 Private Channel Analyses: The Role of IRO Tenure, Position, Lender Focus and Expertise

In this section, we examine whether the link between IR and loan pricing varies with IRO tenure and other IRO characteristics plausibly associated with the likelihood and helpfulness of direct private communications between IROs and lenders.

Unlike public market investors, private lenders are permitted to receive material non-public information from their borrowers. To the extent IR influences loan spreads through private communications with lenders, we expect the magnitude of the effect to be greater for longer-tenured IROs because experienced IROs are expected to communicate more effectively with

investors to meet their information demands. This test is motivated by the intuition that public disclosure quality (i.e., the public information channel) is a function of institutional practices and norms that are relatively time-invariant within a firm and arguably less sensitive to turnover in the IRO. In contrast, the helpfulness of private communications from the IRO is more sensitive to IRO tenure because new IROs need time to learn about the firm and develop relationships.

For this analysis, we limit our sample to the loan facilities that involve borrowers with dedicated IROs because our analysis requires data on IRO tenure. We define an indicator variable, *High IRO Tenure*, to be equal to 1 if a firm's IRO tenure is above the sample median during the year and 0 otherwise. We then estimate Equation (1) with *High IRO Tenure* as our main variable of interest.

We present our results in Panel A of Table 7. Consistent with our expectation, the coefficient on *High IRO Tenure* is significantly negative. Conditional on having an internal IR function, the cost of borrowing is 6.3% lower for firms with long-tenured IROs. This result is consistent with those of Chapman et al. (2019) who suggest that IROs with longer tenure are more effective at reducing information asymmetry between the firm and market participants than those with shorter tenure.

We proceed by examining whether the negative association between IRO tenure and spreads is more pronounced for firms whose IRO share a finance-related position (i.e., investment, treasury, finance). This analysis is motivated by the intuition that IROs who are also in finance roles are more likely to communicate with lenders effectively and privately. To perform our analysis, we limit our sample to IR firms and partition them between those whose IRO shares a finance-related position and those who do not. We estimate Equation (1) using the IRO tenure variable for both subsamples. Panel B of Table 7 presents the results. Consistent with our prediction, we find that the magnitude of the association between IRO tenure and spreads is about three times as large for

the subsample of firms with an IRO sharing a finance role. This difference is statically significant at the 1% level.

Next, we examine whether the link between long-tenured IROs and loan pricing is more pronounced when IR programs are more lender-oriented and thus more likely to communicate with lenders directly. To proxy for this, we first use the prepared remarks section of earnings conference call transcripts, which is usually drafted by IR personnel and excludes analyst questions. References to lenders is an indication of the lender-orientation of the IR program. To the extent IROs influence loan spreads through privately communicating with lenders, we expect more lender-oriented IR departments to have lower spreads.

To test this prediction, we partition our sample between firms that mention and do not mention their lenders. We create an indicator variable, *Comments about Lenders*, which is equal to 1 if the prepared remark section of a firm's earnings conference call transcript during a 6-month period prior to loan issuance includes at least one of the lender-related key words. Specifically, we search for the following terms – "debt holders", "lenders", "debtholders", "debt investors", "debt holder", "lender", "debtholder", "debt investor", "debt investors", "creditor", "creditors". Columns 1 and 2 of Panel C Table 7 present the results. We find that the coefficient on *High IRO Tenure* is significantly more negative for the subsample of IR firms that include comments about lenders during their conference call.

Another proxy we use for IRO's lender-orientation is whether IR programs have stronger relationships with public lenders (i.e., bondholders). The intuition behind this test is that stronger relationships with public lenders is likely to help IROs have stronger relationships with private lenders. Also, IROs that have privately interacted with public lenders are likely to provide better information and more lender-oriented messaging to private lenders, given the broadly similar

incentives and information demands of public and private lenders. We proxy for public lender relationships using the borrower's participation in debt investor conferences prior to the loan issuance date. Debt conferences are usually hosted by sell-side bond analysts to promote their institution and provide a venue for their institutional investor clients to interact directly with managers of bond-issuing firms. Firms issuing bonds are more likely to attend if they have a favorable relationship with their bondholders.

We use the Bloomberg Corporate Events database, download event types equal to 'CP' (Conference Presentation) and search the Event Description field for the following keywords: "fixed income", "debt", "bond", "syndicated" and "loans". *Debt Conference – Yes* is an indicator variable equal to one if the firm has participated in at least one debt conference prior to the loan issuance date during our sample period. We drop our observations prior to year 2004 due to the limited availability of debt investor conference data in Bloomberg for that period.

Columns 3 and 4 of Panel C of Table 7 report the results. We find that the negative association between *High IRO Tenure* and spreads is larger for the subsample of firms that have participated in debt investor conferences and therefore are more likely attuned to the concerns of lenders. We interpret this as evidence that stronger bondholder relationships are associated with improved private information for private lenders. Collectively, findings from Panel C suggest that long-tenured IROs are particularly helpful in lowering spreads when the IR team is lender-oriented.

The previous results are consistent with IR reducing loan spreads through better private information. However, one possible alternative explanation is that it is overall IR experience, and not necessarily better private information per se that is driving the previous results. We explore the effect of overall IR experience by testing the association between loan spreads and previous IR experience. To this end, in Panel D of Table 7 we replace our IRO tenure indicator variable for

an indicator variable equal to 1 if the IRO has worked in an IR capacity at another firm prior to joining the company. We fail to find a significant association between IRO prior IR experience and spreads. This finding supports the idea that firm-specific knowledge and relationships formed within the firm over time impact the information flow from IROs to lenders.

4.7 Additional Analyses to Address Endogeneity Concerns

Given that the decision to hire an IRO is a firm choice, omitted variable bias is a concern in our setting. We control for factors associated with both the IR decision and debt contract terms, such as firm size, analyst following, market-to-book, profitability, leverage, credit rating, and proxies for voluntary and mandatory disclosures. However, it is possible that omitted firm characteristics associated with the IR decision may impact our results. In this section we employ three additional approaches to address such internal validity concerns: entropy balancing, additional firm and lender fixed effects, and using IRO turnover as an alternative IR variable. We note that fully mitigating endogeneity concerns may not be possible in our setting and therefore caution against interpreting our results as causal.

We start by employing an entropy balancing technique, which is a quasi-matching approach that weights each observation such that post-weighting distributional properties of treatment and control observations are virtually identical, thereby ensuring covariate balance. We match observations along factors that have been shown to be related to the decision to hire an IRO (Chapman et al. 2019, Kirk and Vincent 2014, Bushee and Miller 2012): firm size, market-to-book ratio, leverage, scaled earnings (i.e., earnings before unusual items scaled by the market value of equity) and earnings volatility. Panel A of Table 8 presents the results. The coefficient on *IR Firm* is negative and statistically significant when balancing observations on these observable firm characteristics.

As a robustness test, we also make several modifications to Equation (1) by using additional fixed effects and present our findings in Panel B of Table 8. The significantly negative association between *IR Firm* and spreads is robust to the inclusion of lender (column 1), borrower (column 2) and borrower-lender fixed effects (column 3).

4.7.1. IRO Turnover

In this set of tests, we restrict the sample of loans that were issued three years before and three years after IRO turnover in a firm. This test is motivated by the intuition that potentially omitted factors, such as disclosure quality, are a function of institutional practices and norms that are relatively time-invariant within a firm and arguably less sensitive to turnover in the IRO. In contrast, the helpfulness of communications from the IRO is more sensitive to IRO tenure because a new IRO needs time to establish relationships and to learn about the firm and how to communicate effectively with investors and lenders. We re-estimate Equation (1) by replacing the variable of interest with *IRO Turnover*, which is an indicator variable equal to 1 if a loan was issued after IRO turnover and 0 otherwise.

Panel C of Table 8 presents the results. The specification in column 1 includes industry, year, and purpose fixed effects, and the specification in column 2 includes borrower, year, and purpose fixed effects. We find significantly positive coefficients on *IRO Turnover* using both fixed effects structures, indicating that spreads increase after a turnover in IRO. These results support the idea that IRO's experience matters in private lending, similar to public capital markets as shown by prior research (e.g., Chapman et al. 2019).

To further validate that the increase in spreads we observe around changes in IRO are not due to concurrent decreases in firm disclosure, in Panel D of Table 8 we present the levels and changes in our disclosure variables around IRO turnover. We find that management guidance and number

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of 8-Ks tend to increase, the length of the 10-K tends to decrease, financial reporting quality remains stable and media sentiment tends to increase after a change in IRO. These results are inconsistent with a deterioration in firm disclosure that would provide an alternative explanation of the outcomes we observe following the turnover of a long-tenured IRO.

Taken together, the evidence from the IRO turnover regressions, the IRO in finance role cross-sectional analysis, the entropy balancing regressions, the inclusion of additional fixed effects, and our multiple cross-sectional tests suggest that IROs play an important informational role in private debt markets.

4.8 Other Contract Terms

In this section, we focus on three specific non-price terms of loan contracts: collateral requirements, covenant mix, and lead allocation. Prior research suggests that collateral can be used to reduce information asymmetry between the borrower and the lead lender by credibly signaling the quality of the borrower and/or mitigating moral hazard (Bester 1985, Besanko and Thakor 1987). Empirical evidence documents the lead arranger's incentives to require collateral when the borrower is informationally opaque (e.g., Bharath et al. 2009). IR may improve both public and private communications with private lenders, thereby improving the firm's information environment and mitigating information asymmetry problems. Therefore, we predict that lead arrangers are less likely to require collateral from their borrowers who have dedicated IROs.

We also examine whether IR influences lenders' monitoring incentives. Prior research suggests that while capital (balance-sheet-based) covenants are used to address agency problems by aligning ex ante debtholder-shareholder interests, performance (i.e., income-statement-based) covenants serve as trip wires to allocate control rights to lenders when a borrower underperforms (e.g., Christensen and Nikolaev 2012, Christensen et al. 2016). Lenders' monitoring needs through

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performance covenants may decrease to the extent that IR helps their borrowers to meet lender information demands and improves the overall the firm narrative (Brown et al. 2019). Accordingly, we predict that lenders impose fewer performance covenants relative to capital covenants in a loan contract when their borrowers have dedicated IROs.

We also investigate the relation between IR and the share of a loan retained by the lead arranger. In contrast to traditional loans where information asymmetry exists between the lender and the borrower, in syndicated loans information asymmetry also exists between the lead lender and participants. We expect that if borrowers have dedicated IROs information asymmetry among syndicate members will be mitigated because participating lenders will have more sources of information to learn about and monitor their borrowers. This leads to our prediction that the lead arranger retains a smaller fraction of loans when its borrower has an internal IR function.

Table 9 presents the results. In column 1 the dependent variable is *Collateral*, an indicator variable equal to 1 if the loan is secured and 0 otherwise. Consistent with our prediction, we find that the coefficient on *IR Firm* is significantly negative, indicating that the lead arranger is 5.9% less likely to require collateral for IR firms. In column 2, the dependent variable is *Performance Covenant*, defined as the ratio of the number of performance covenants to the sum of performance and capital covenants in a loan contract (e.g., Kang et al. 2020). The coefficient on *IR Firm* is significantly negative, consistent with reduced monitoring through performance covenants for IR firms. Taken together, the results suggest that IR is associated with less restrictive contract terms. Contrary to our expectations, we do not find that *Lead Allocation* is significantly lower for IR firms.

5. Conclusion

We investigate whether IR programs benefit private loan terms through public and private information channels. We find evidence consistent with both information channels being associated with lower loan spreads after controlling for common determinants of spreads and firm disclosure. This association is the strongest when information asymmetry between borrower and lead lender is high and when there are higher levels of firm financial distress. We also find lower levels of collateral and fewer performance covenants associated with dedicated IROs.

Overall, our study makes two significant contributions to the literature. First, our paper contributes to the literature on IR activities by documenting various benefits to borrowers in private loan markets. Prior literature shows the benefits of IR exclusively in public markets. The question of whether or how IR plays a role in private markets is important given the difference between private and public markets along dimensions such as market participation, information demands, access to private information, the role of regulation, and established norms of how these markets are handled by firms. Second, we contribute to the literature on information intermediaries. Prior research has studied the role of information intermediaries that are external to the firm, such as media and sell-side analysts in the market for private debt. By focusing on IROs, we extend this literature by role of an information intermediary within the firm in loan contracting outcomes.

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APPENDIX A

Examples of IROs' job descriptions on LinkedIn that make references to interactions with lenders.

Example 1*: "Revamped approach to rating agency and <u>lender relationships</u>. <u>Organized non-deal lender roadshow to build credibility with banks and various other lenders</u>. Demonstrated integrity and developed rapport to aid future financings."*

Example 2: *"Directed team in preparing, reviewing, and filing 10K and 10Qs and other monthly and quarterly internal and external financial reports for corporate, regulators, partners, and <u>lenders</u>, including periodic SEC filings, FERC filings, US GAAP financials, and corporate cash flow reporting. Conducted financial planning and analysis for operations. <u>Coordinated private debt offerings (including pro-forma financials and managing banker/investor questions)</u>."*

Example 3: "*Built network and managed <u>company interactions</u> with all equity buy-side and sell-side, as well as <u>lenders</u>, debt investors, and financial services vendors."*

Example 4: *"Reporting to the CFO, led investor outreach and preparation of materials for quarterly earnings calls and <u>meetings with</u> Board of Directors, investors and <u>lenders</u>."*

Example 5*: "Maintain on-going <u>direct interface</u> with buy-side and sell-side analysts, credit rating agencies, and <u>relationship banks</u>."*

Example 6: *"Responsible of the investor relations area. Considered relation with equity and debt investors, rating agencies, <u>banks</u>, buy and sell-side analysts, both <u>locally and abroad</u>.*

Example 7*: "Created roadshow presentations and coordinated appearances at investment conferences. <u>Prepared and participated in presentations</u> to debt rating agencies and <u>banks</u> and contributed to the creation of offering memoranda and financing activities."*

Appendix B

Variable Definitions

Variable	Definition
IR Firm	= An indicator variable equal to 1 if a firm has internal investor relations within a 6-month period prior to the loan issuance date.
IRO Tenure	= The number of quarters an IRO has held the position at the firm during a six-month period prior to loan issuance date according to conference call transcripts.
High IRO Tenure	= An indicator variable equal to 1 if the tenure of the IRO is above the median during the year and 0 otherwise.
IRO Turnover	= An indicator variable equal to 1 if there was IRO turnover during a three-year period prior to loan issuance and 0 otherwise.
Spread	= The natural logarithm of all-in-drawn spread.
Collateral	= An indicator variable equal to 1 if the loan is secured and 0 otherwise.
Lead Allocation	= The percentage of the loan financed by the lead arranger.
Performance Covenant	= The ratio of the number of performance covenants to the sum of performance and capital covenants in a loan contract.
Amount	= The natural logarithm of the loan facility amount in US dollars.
Maturity	= The natural logarithm of the number of months to maturity.
PP	= An indicator variable equal to 1 if the loan has a performance pricing provision and 0 otherwise.
Revolver	= An indicator variable equal to 1 if the loan is a revolving line of credit and 0 otherwise.
Term Loan B	= An indicator variable equal to 1 if the loan type is Term loan B or below (C, D, E and F) and 0 otherwise.
ROA	= The ratio of the borrower's income before extraordinary items to its total assets, measured in the quarter preceding a loan's issuance.
Loss	= An indicator variable equal to 1 if a borrower's net income is less than zero, and 0 otherwise, measured in the quarter preceding a loan's issuance.
Interest Coverage	= The ratio of earnings before interest and tax to the interest expense, measured in the quarter preceding a loan's issuance.
Leverage	= The ratio of total long-term debt to the book value of assets, measured in the quarter preceding a loan's issuance.
Size	= The natural logarithm of the book value of assets, estimated in the quarter preceding a loan's issuance.
MTB	= The ratio of the market value of equity to the book value of equity, measured in the quarter preceding a loan's issuance.
Rated	= An indicator variable equal to 1 if the borrower has a senior debt rating from S&P and 0 otherwise.

Lead-Borr Rel	= An indicator variable equal to 1 if a loan's lead arranger has issued more than 50% of the borrower's prior loan deals by volume over the five years preceding the loan issuance date and 0 otherwise.
Analyst Following	= The natural logarithm of 1 plus the number of equity analysts following the borrower, measured in the quarter preceding a loan's issuance.
Foreign Lead Lender	= An indicator variable equal to 1 if the lead bank is a non-US lender and 0 otherwise.
Foreign Participants	= The ratio of foreign participants to the total number of participants.
Relationship Participants	= Ratio of relationship participants to the total number of participants.
Bankruptcy Risk	= Altman's (1968) bankruptcy measure (z-score) for the firm.
Management Guidance	= The natural logarithm of 1 plus the number of management forecasts issued within a 6-month period prior to the loan issuance date.
# of 8-Ks	= The natural logarithm of 1 plus the number of 8-ks filed in the 6-month period prior to the loan issuance date.
Length of 10K	= The natural logarithm of the number of words in the 10K filed for the fiscal year preceding the loan issuance date.
Financial Reporting Quality	= Minus 1 times the absolute value of the discretionary accruals estimated using the Kothari 2005, performance matched, modified Jones model in the fiscal year preceding to the loan issuance date.
Media Sentiment	= Firm's average RavenPack's Composite Sentiment Score (CSS) of full articles with relevance scores greater than 75 over the 6 months prior to the loan issuance date.
Comments about Lenders	= An indicator variable equal to 1 if the management team mentions their lenders during a conference call in the 6-month period prior to loan issuance and 0 otherwise.
Debt Conference	= An indicator variable equal to 1 if the firm participated in a debt investor conference prior to the loan issuance date according to Bloomberg and 0 otherwise.

TABLE 1
Sample Selection

	Lead-Facility Pairs
Syndicated loans to public U.S. borrowers by U.S. banks, in U.S. dollars, issued from 2003 to 2015	27,470
After excluding financial firms	23,142
After eliminating the loans with insufficient loan data	18,456
After eliminating the loans with insufficient borrower data	15,639

Note: Table 1 presents the sample selection process.

TABLE 2
Descriptive Statistics

Panel A: Summary Statistics

	N	Mean	S.D.	Median	Q1	Q3
IR Firm	15,639	0.470	0.499	0.000	0.000	1.000
IRO Tenure	7,351	18.458	12.493	14.500	8.500	25.500
Spread	15,639	5.007	0.721	5.091	4.723	5.521
Collateral	11,450	0.580	0.494	1.000	0.000	1.000
Performance Covenants	10,129	0.762	0.352	1.000	0.667	1.000
Lead Allocation	4,824	16.586	16.883	11.000	7.500	18.330
Amount	15,639	6.053	1.283	6.163	5.298	6.908
Maturity	15,639	3.873	0.507	4.094	3.871	4.094
PP	15,639	0.484	0.500	0.000	0.000	1.000
Revolver	15,639	0.630	0.483	1.000	0.000	1.000
Term Loan B	15,639	0.104	0.306	0.000	0.000	0.000
ROA	15,639	0.011	0.018	0.011	0.004	0.019
Loss	15,639	0.147	0.354	0.000	0.000	0.000
Interest Coverage	15,639	13.213	34.018	4.744	2.015	11.427
Leverage	15,639	0.285	0.182	0.262	0.158	0.381
Size	15,639	8.410	1.668	8.370	7.231	9.578
MTB	15,639	2.929	5.360	2.182	1.379	3.425
Rated	15,639	0.761	0.426	1.000	1.000	1.000
Lead-Borr Rel	15,639	0.392	0.488	0.000	0.000	1.000
Analyst Following	15,639	2.281	0.785	2.398	1.792	2.833
Management Guidance	15,639	1.569	0.908	1.792	1.099	2.197
# of 8Ks	15,639	1.338	1.556	0.000	0.000	2.773
Length of 10K	15,639	11.310	0.720	11.251	10.887	11.743
Financial Reporting Quality	15,639	-0.067	0.074	-0.043	-0.087	-0.019
Foreign Lead	15,639	0.218	0.413	0.000	0.000	0.000
Foreign Participants	14,101	0.332	0.268	0.333	0.091	0.500
Relationship Participants	14,101	0.449	0.314	0.455	0.200	0.667
Bankruptcy Risk	14,372	1.928	1.750	1.585	0.753	2.605
Media Sentiment	14,923	-0.005	0.025	-0.005	-0.018	0.010

Note: Table 2 Panel A reports summary statistics for the key variables in the sample of loans originated between 2003 and 2015. Each observation represents a facility-lead pair. All continuous variables are winsorized at 1% and 99% levels. Variable definitions are in Appendix B.

Panel B: IR Firm vs. Non-IR Firm

	IR Firm			Non-IR Firm			Mean Difference t-test
	N	Mean	Median	N	Mean	Median	
Spread	7,351	4.884	5.011	8,288	5.117	5.165	-0.232***
Collateral	5,093	0.439	0.000	6,357	0.693	1.000	-0.254***
Performance Covenants	4,544	0.715	1.000	5,585	0.800	1.000	-0.085***
Lead Allocation	2,548	12.726	9.286	2,276	20.909	14.000	-8.183***
Amount	7,351	6.447	6.522	8,288	5.703	5.784	0.744***
Maturity	7,351	3.868	4.094	8,288	3.877	4.094	-0.009
PP	7,351	0.470	0.000	8,288	0.497	0.000	-0.027***
Revolver	7,351	0.654	1.000	8,288	0.608	1.000	0.046***
Term Loan B	7,351	0.085	0.000	8,288	0.121	0.000	-0.036***
ROA	7,351	0.012	0.012	8,288	0.010	0.011	0.003***
Loss	7,351	0.112	0.000	8,288	0.178	0.000	-0.066***
Interest Coverage	7,351	12.557	5.192	8,288	13.796	4.313	-1.240**
Leverage	7,351	0.279	0.256	8,288	0.290	0.271	-0.011***
Size	7,351	9.112	9.026	8,288	7.787	7.718	1.325***
MTB	7,351	2.628	2.214	8,288	3.196	2.155	-0.568***
Rated	7,351	0.880	1.000	8,288	0.656	1.000	0.224***
Lead-Borr Rel	7,351	0.415	0.000	8,288	0.372	0.000	0.043***
Analyst Following	7,351	2.542	2.639	8,288	2.050	2.197	0.492***
Management Guidance	7,351	1.818	1.946	8,288	1.349	1.386	0.469***
# of 8Ks	7,351	1.324	0.000	8,288	1.351	0.000	-0.028
Length of 10K	7,351	11.351	11.263	8,288	11.275	11.235	0.076***
Financial Reporting Quality	7,351	-0.059	-0.039	8,288	-0.074	-0.048	0.015***
Foreign Lead	7,351	0.257	0.000	8,288	0.183	0.000	0.074***
Foreign Participants	6,744	0.385	0.389	7,357	0.285	0.250	0.100***
Relationship Participants	6,744	0.490	0.500	7,357	0.412	0.400	0.079***
Bankruptcy Risk	6,777	1.886	1.580	7,595	1.965	1.592	-0.078***
Media Sentiment	7,196	-0.005	-0.004	7,727	-0.006	-0.005	0.001**

Note: Panel B provides descriptive statistics for the sample of 2003-2015 IR and non-IR firms. All variables are defined in Appendix B. Continuous variables are winsorized at the 1st and 99th percentiles. Significance at the 10%, 5%, and 1% levels for two-sided tests is denoted by *, **, and ***, respectively.

TABLE 3
Investor Relations and Interest Rate Spread

	Spread
IR Firm	-0.076***
	(-3.445)
Amount	-0.079***
	(-8.839)
Maturity	0.120***
	(5.221)
PP	-0.014
	(-0.702)
Revolver	-0.060***
	(-2.991)
Term Loan B	0.321***
	(10.193)
ROA	-4.449***
	(-5.309)
Loss	0.123***
	(3.610)
Interest Coverage	-0.001
	(-1.442)
Leverage	0.581***
	(8.068)
Size	-0.088***
	(-5.947)
MTB	-0.006***
	(-2.743)
Rated	0.019
	(0.726)
Lead-Borr Rel	-0.041***
	(-3.786)
Analyst Following	-0.063***
	(-3.420)
Management Guidance	-0.030**
	(-2.349)
# of 8Ks	0.008
	(1.583)
Length of 10K	0.136***
	(7.532)
Fin. Reporting Quality	-0.391***
	(-3.649)
Fixed Effects	Industry, Year, Purpose
Observations	15,637
Adj. R^2	0.627

Note: Table 3 presents the association between IR and interest rate spread. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 4
Investor Relations, Spreads, and Information Asymmetry between Borrower and Lenders

Panel A: Information Asymmetry between Borrower and Lead Lenders

	Spread					
	Non-Relationship Lead Lender			Foreign Lead Lender		
	No	Yes	P. Value Diff.	No	Yes	P. Value Diff.
	(1)	(2)		(3)	(4)	
IR Firm	-0.065***	-0.077***	0.248	-0.057***	-0.141***	<0.01
	(-2.643)	(-3.000)		(-2.683)	(-3.890)	
Controls	Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Observations	6,132	9,503		12,234	3,401	
Adj. R^2	0.621	0.636		0.627	0.653	

Panel B: Information Asymmetry between Borrower and Participant Lenders

	Spread					
	Relationship Participants			Foreign Participants		
	Low	High	P. Value Diff.	Low	High	P. Value Diff.
	(1)	(2)		(3)	(4)	
IR Firm	-0.061**	-0.043*	0.170	-0.025	-0.105***	<0.01
	(-2.036)	(-1.741)		(-0.940)	(-3.258)	
Controls	Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Observations	7,451	6,647		7,239	6,860	
Adj. R^2	0.584	0.676		0.583	0.672	

Note: Table 4 presents whether the association between IR and interest rate spread varies with information asymmetry between the borrower and lenders. Panel A presents the results partitioning the sample based on the information asymmetry between the borrower and the lead lender. Panel B presents the results partitioning the sample based on the information asymmetry between the borrower and participant lenders. *Non-Relationship Lead Lender* is an indicator variable equal to 1 if a loan's lead arranger has syndicated less than 50% of the borrower's prior loan deals by volume over the five-year period preceding the loan issuance date and 0 otherwise. *Foreign Lead Lender* is an indicator variable equal to 1 if the lead arranger is a non-US bank and 0 otherwise. *Relationship Participants* is the ratio of relationship participants to the total number of participants and is considered high when it is at or above the sample median. *Foreign Participants- High* is equal to 1 if the ratio of foreign participants to the total number of participants is at or above the median during the sample year and zero wise. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 5
Investor Relations, Spreads, and Borrower's Financial Distress

	Spread					
	Bankruptcy Risk			Leverage		
	Low	High	P. Value	Low	High	P. Value
	(1)	(2)	Diff.	(3)	(4)	Diff.
IR Firm	-0.045	-0.073**	0.049	-0.053*	-0.076***	0.097
	(-1.506)	(-2.475)		(-1.799)	(-2.680)	
Controls	Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Observations	7,162	7,205		7,844	7,789	
Adj. R^2	0.675	0.615		0.660	0.594	

Note: Table 5 presents whether the association between IR and interest rate spread varies with firm's financial distress. *Bankruptcy Risk - High* is an indicator variable equal to 1 if Altman's (1968) bankruptcy measure (z-score) for the firm is below the median and 0 otherwise. *Leverage – High* is and indicator variable equal to one if leverage for the firm is above median. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 6

Investor Relations, Spreads and Firm Disclosure and Information Environment

Panel A: Firm Disclosure

	Spread								
	Management Guidance			Length of 10-K			Number of 8-Ks		
	Low	High	P.Val.	Low	High	P.Val.	Low	High	P.Val.
	(1)	(2)	Diff.	(3)	(4)	Diff.	(5)	(6)	Diff.
IR Firm	-0.059**	-0.110***	<0.01	-0.094***	-0.056*	0.024	-0.079***	-0.066**	0.235
	(-2.153)	(-3.386)		(-3.347)	(-1.800)		(-2.956)	(-2.376)	
Controls	Included	Included		Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Obs.	8,542	7,093		7,855	7,779		8,617	7,018	
Adj. R^2	0.589	0.679		0.688	0.573		0.639	0.631	

Panel B: Information Intermediaries

	Spread					
	Media Sentiment			Analyst Following		
	Low	High	P.Val.	Low	High	P.Val.
	(1)	(2)	Diff.	(3)	(4)	Diff.
IR Firm	-0.029	-0.136***	<0.01	-0.076***	-0.099***	0.107
	(-1.166)	(-3.926)		(-2.905)	(-2.851)	
Controls	Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Observations	7,462	7,456		8,249	7,387	
Adj. R^2	0.586	0.675		0.546	0.685	

Note: Table 6 presents whether the association between IR and interest rate spread varies with (1) firm disclosure and (2) information intermediaries. *Management Guidance – High* is an indicator variable equal to 1 if the number of a firm's management forecasts issued is above the sample median during the year and 0 otherwise. *Length of 10-K – High* is an indicator variable equal to 1 if the number of words in a firm's 10-K filing is above the sample median during the year and 0 otherwise. *Media Sentiment – High* is an indicator variable equal to 1 if a firm's average Composite Sentiment Score (CSS) over the 6 months prior to the loan issuance date is above the sample median during the year and 0 otherwise. *Analyst Following – High* is an indicator variable equal to 1 if the number of distinct analysts following the firm is above the sample median during the year and 0 otherwise Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 7
Investor Relations, Spreads, and IRO Characteristics

Panel A: Long-Tenured IROs and Interest Rate Spread

	Spread
High IRO Tenure	-0.063**
	(-2.150)
Controls	Included
Fixed Effects	Industry, Year, Purpose
Observations	7,349
Adj. R^2	0.676

Panel B: IRO in a Finance Role

	Spread		
	IRO Shares Finance Role		
	No	Yes	P. Value Diff.
	(1)	(2)	
High IRO Tenure	-0.053*	-0.155**	<0.01
	(-1.709)	(-2.028)	
Controls	Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose	
Observations	6,733	613	
Adj. R^2	0.684	0.743	

Panel C: Lender Focus of the IRO

	Spread					
	Comments about Lenders			Debt Conference		
	No	Yes	P. Value Diff.	No	Yes	P. Value Diff.
	(1)	(2)		(3)	(4)	
High IRO Tenure	-0.066**	-0.129*	<0.01	-0.040	-0.147**	<0.01
	(-2.165)	(-1.872)		(-1.490)	(-2.290)	
Controls	Included	Included		Included	Included	
Fixed Effects	Industry, Year, Purpose	Industry, Year, Purpose		Industry, Year, Purpose	Industry, Year, Purpose	
Observations	6,600	746		6,298	887	
Adj. R^2	0.675	0.807		0.688	0.721	

Panel D: IRO with Prior IR Experience in Another Firm

	Spread
IRO Prior IR Experience	0.028
	(0.609)
Controls	Included
Fixed Effects	Industry, Year, Purpose
Observations	7,349
Adj. R^2	0.674

Note: Table 7 presents the association between IRO tenure and interest rate spread for the subsample of firms with IR. Panel A presents the results for the full sample of IR firms. Panels B and C present analyses on whether the association between IRO tenure and spread is more pronounced when (1) the IRO also assumes a finance-related role in the firm (i.e., investment, treasury, finance), (2) managers mention lenders during conference calls, and (3) the firm participates in a debt investor conference prior to the loan issuance date. *Comments about Lenders - Yes* is an indicator variable equal to 1 if in the 6-month period prior to loan issuance the management team mentions their lenders during a conference call and 0 otherwise. Panel D presents the association between IRO prior experience at a different firm and spreads. *IRO Prior Experience* is an indicator variable equal to 1 if the IRO had worked in an IR capacity at a different firm before joining the company. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 8
Additional Tests to Address Endogeneity Concerns

Panel A: Entropy Balancing

	Spread
IR Firm	-0.087***
	(-3.134)
Controls	Included
Fixed Effects	Industry, Year, Purpose
Observations	15,129
Adj. R^2	0.648

Panel B: Alternative Specifications

	Spread		
	(1)	(2)	(3)
IR Firm	-0.074***	-0.057*	-0.068**
	(-3.473)	(-1.873)	(-2.144)
Controls	Included	Included	Included
Fixed Effects	Lender, Industry, Year, Purpose	Borrower, Year, Purpose	Borrower-Lender, Year, Purpose
Observations	15,514	15,477	13,023
Adj. R^2	0.645	0.817	0.865

Panel C: IRO Turnover

	Spread	
	(1)	(2)
IRO Turnover	0.096*	0.075*
	(1.854)	(1.846)
Controls	Included	Included
Fixed Effects	Industry, Year, Purpose	Borrower, Year, Purpose
Observations	1,642	944
Adj. R^2	0.640	0.895

Panel D: Levels and Changes in Firm Disclosure around IRO Turnover

	Pre	Post	Diff.
	(1)	(2)	(3)
Management Guidance (Log)	1.635	1.971	0.335***
Number 8-Ks (Log)	1.218	1.496	0.278**
10-K Length (Log)	11.713	11.424	-0.289***
FRQ	-0.045	-0.048	-0.003
Media Sentiment	-0.012	-0.009	0.003*

Note: Table 8 presents the association between IR and interest rate spreads using IRO using entropy balancing in Panel A, using alternative specifications in Panel B and using IRO turnover in Panel C. Panel D presents the average levels and changes in properties of disclosure around the turnover of an IRO for the sample of 944 observations restricted to borrowers who have at least one observation before and after IRO turnover in the sample, consistent with column 2 of Panel C. For the entropy balancing, firms are matched based on firm size, scaled earnings, earnings volatility, leverage, market-to-book, and institutional ownership. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.

TABLE 9
Investor Relations and Other Contract Terms

	Collateral	Performance Covenant	Lead Allocation
	(1)	(2)	(3)
IR Firm	-0.059**	-0.050**	-0.977
	(-2.373)	(-2.134)	(-1.471)
Amount	-0.050***	0.005	-4.967***
	(-4.332)	(0.525)	(-9.473)
Maturity	0.133***	0.065***	-6.555***
	(7.130)	(4.084)	(-7.017)
PP	-0.096***	0.015	-5.482***
	(-4.961)	(0.882)	(-5.733)
Revolver	-0.024	-0.034**	2.855***
	(-1.269)	(-2.436)	(3.794)
Term Loan B	0.185***	-0.000	19.480***
	(5.389)	(-0.011)	(4.396)
ROA	-1.431*	-0.163	-70.275***
	(-1.908)	(-0.237)	(-2.626)
Loss	0.064**	-0.006	0.300
	(2.003)	(-0.222)	(0.223)
Interest Coverage	0.000	0.000	0.004
	(0.886)	(1.191)	(0.344)
Leverage	0.369***	0.235***	-5.577**
	(6.262)	(3.718)	(-2.036)
Size	-0.084***	-0.030*	-0.949**
	(-6.058)	(-1.884)	(-2.242)
MTB	-0.001	0.004	-0.074
	(-0.648)	(1.592)	(-1.160)
Rated	0.076**	-0.042**	-1.966*
	(2.329)	(-2.073)	(-1.915)
Lead-Borr Rel	-0.021*	-0.004	0.877**
	(-1.920)	(-0.336)	(1.986)
Analyst Following	-0.041**	0.010	-1.798***
	(-2.298)	(0.514)	(-2.855)
Management Guidance	-0.010	0.005	-0.871**
	(-0.687)	(0.333)	(-2.463)
# of 8Ks	0.000	0.008*	0.242
	(0.045)	(1.649)	(1.407)
Length of 10K	0.085***	-0.002	-0.102
	(5.657)	(-0.155)	(-0.236)
Fin. Reporting Quality	-0.115	-0.016	-9.012**
	(-1.066)	(-0.183)	(-2.033)
Fixed Effects		Industry, Year, Purpose	
Observations	11,449	10,127	4,821
Adj. R-squared	0.468	0.315	0.458

Note: Table 9 presents the association between IR and non-price contract terms (i.e., collateral and performance covenants) and lead arranger share. *Collateral* is an indicator variable, which is equal to 1 if the loan is secured and 0 otherwise. *Performance Covenant* is the ratio of the number of performance covenants to the sum of performance and capital covenants in a loan contract. *Lead allocation* is the percentage of the loan financed by the lead arranger. Variable definitions are in Appendix B. T-statistics, in parentheses, are based on standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using a two-tailed test.