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## Do investors' site visits affect the price of bond issues?

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## ABSTRACT

Taking the bonds issued by A-share listed companies on the Shenzhen Security Exchange from 2014 to 2020 as a sample, this paper explores how investors' site visits to listed companies affect the price of bond issues. We find that when more investors site visits a particular listed company, the bond spread for that company is lower. This phenomenon is more pronounced in firms that supply less information. Securities companies, mutual funds, and trust companies gain more information from site visits than banks or insurance companies. Further research shows that investors make decisions more rationally and evaluate companies' investment efficiency or financial constraints more accurately after site visits, which can reduce additional financing costs caused by information investors may have otherwise received from intermediaries with poor reputations. The results show that investors' site visits to listed companies can provide effective information for bond investors and reduce their information risk. Therefore, site visits are important to improving firms' information disclosure in the bond market and helping investors make more-rational decisions.

## 1. Introduction

Bonds are an important direct finance channel for firms (Mishkin, 2018). In the world's second-largest bond market—China—bond issues grew rapidly beginning in the twenty-first century. But in recent years, defaults of debenture bonds have become more frequent. Table 1 summarizes bond defaults in the Chinese market: in 2014, eight bonds worth USD \$0.19 billion defaulted. In 2021, the number of defaulted bonds climbed to 162, twenty times the 2014 number. More important, default amounts rose sharply to USD 20.81 billion, a hundred times greater than that in 2014. The value of bond defaults hit USD \$20 billion in China for just the first half of 2022, which was already more than the full-year total from the previous year.<sup>1</sup> The defaults increased the number of risk-averse investors and widened the credit spread, meaning that investors started requiring bond issuers to pay a higher risk premium. Consequently, corporations face higher financing costs when they issue bonds.

In the bond market, issuers' information delivery deeply shapes investors' exchange activity. Lu et al. (2014) suggest that when investors receive more timely and accurate information, they will have an advantage in making investment decisions. Additionally, Butler (2008) documents that access to a firm's soft information gives underwriters a comparative advantage during the bond offering.

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**Table 1**  
Summary of defaults in the Chinese bond market.

YEAR	Number of defaults	Default amount of bond (in billion USD)
2014	8	0.19
2015	27	0.49
2016	17	0.27
2017	14	0.43
2018	91	7.26
2019	151	11.69
2020	136	14.90
2021	162	20.81

Thus, many institutional investors visit a firm to gain soft information. In most capital markets, information gained from site visits goes beyond public information. But in China, the regulations of the Shenzhen Security Exchange require listed firms to disclose site visit information within two days. The information that must be disclosed includes the time and location of the visit, questions asked and answers given, the name of the investor and the institution, and the names of the executives who participated.

In several studies using Chinese corporate site visit data, authors report that site visits are informative. For instance, analysts who visit corporate sites can provide more-accurate earnings forecasts (Cheng et al., 2016), and management forecasts are more accurate when investors pay more corporate site visits, suggesting corporate site visits serve as a communication channel through which managers learn from investors (Chen et al., 2022). Similarly, the flow of information drives participants' behavior in the bond market. Torvanger et al. (2021) document that communication between investors and bond issuers mitigates the lack of information and enhance the efficiency of bond market pricing. Related studies mainly focus on the effect of communication through conference calls or internet meetings on bond market pricing (Franco et al., 2010). However, face-to-face communication delivers "soft information" that is more useful, such as the condition of factories or equipment and offers visitors the ability to consider the facial expressions and body language of executives (Loughran, 2008).

This primary purpose of this paper is to show the importance of soft information transfer in the capital market. We specifically examine the effect of face-to-face communication between investors and Chinese listed firms on the price of bond issues. We use a sample of Chinese firms for several reasons. First, the Shenzhen Security Exchange requires their listed companies to disclose information about site visits, unlike exchanges in many other capital markets, including the United States (Cao et al., 2025). The databases of corporate site visits by investors in companies listed on the Shenzhen Security Exchange help us determine when face-to-face communication occurred. Second, the Chinese bond market is underdeveloped, the adverse impact of bond defaults in China is more serious than in developed bond markets. For instance, at the end of 2020, the default of the AAA-rated bonds issued by Yongmei Group Co. Ltd. spurred a tidal wave of panic and a selloff in China's corporate debt market. In the following week, companies canceled more than 120 planned bond issuances.<sup>2</sup> During such a scenario, soft information could play a significant role in the price of bond issues.

We find that when investors make visit a firm more often, the bond spread of the firm is lower. The effect of corporate site visits is more pronounced when a firm supplies less information. The results are robust to a series of checks, including alternative estimation methods, alternative corporate site visit and spread metrics, reduced samples without firms conducting roadshows or online information sessions, keeping the largest dollar amount of bond issues within a month, using a matched sample, and excluding observations in the COVID-19 period. Furthermore, securities companies, mutual funds, and trust companies gain more information from site visits than banks and insurance companies. Additional analysis finds that investors make decisions that are more rational and evaluate companies' investment efficiency or financial constraints more accurately through site visits. With a better understanding of the firm's actual financing constraints, this can reduce additional financing costs that would otherwise be caused by information from intermediaries with a poor reputation. Our findings are consistent with our hypothesis that investors' corporate site visits allow them to obtain soft information that leads to lower spreads when the company issues bonds.

We contribute to the literature in two significant ways. First, we extend the literature on the effect of corporate site visits. Prior literature mainly concentrates on the economic consequences of site visits in two aspects: one is corporate finance, such as R&D investment or earning management (Jiang and Yuan, 2018; Gao et al., 2022), and the other is market efficiency, such as stock price or stock synchronicity (Cheng et al., 2019; Chen et al., 2023). Market efficiency studies underexplore primary market efficiency. As far as we know, only Li et al. (2022) document that site visits are a "win-win" for investors and seasoned equity offering (SEOs) firms. We focus on bond issue pricing and find such visits provide useful information that can help investors reduce the risk premium despite an environment of numerous bond defaults. Thus, corporate site visits are generally helpful in the capital formation process.

Second, we document a new determinant of the spread on bond issues by capturing investors' efforts to directly acquire information. In existing literature, most researchers treat bond investors as passive information receivers (Dutordoir et al., 2014). In fact, bond investors actively seek information. We show that corporate site visits play a role in lowering bond spreads through information acquisition and transmission, which is consistent with the information asymmetry explanation of bond issue pricing (Gerber, 2008). Additionally, our results indicate that institutional investors gain information from site visits, and they echo Wei (2018)w, who finds that institutional investors in the corporate bond market suffer from less behavioral biases than retail investors. Our findings of a

<sup>2</sup> <https://www.asiafinancial.com/wave-of-china-bond-issues-cancelled-as-defaults-trigger-market-panic> (accessed March 2, 2023).

significantly negative association between site visits and bond spread are important for bond issuers who wish to access financing more easily and lower their cost of debt.

Third, this paper offers an important policy implication regarding corporate investor relations for developed and emerging capital markets. Most researchers document that investors benefit from investor relations programs, such as participating in conference calls or conducting corporate site visits (Brown et al., 2019). With the rapid growth of the Chinese capital market, the Shenzhen Exchange implemented a series of rules to regulate investor relations, one of which is that listed firms must disclose investor site visit information. However, despite site visits being an important corporate investor relations activity, other securities exchanges do not mandate the disclosure of site visit information. Many studies emphasize that disclosure of site visit information is not only good for academic research, but also helps retail investor make investment decisions (Su et al., 2021; Gao et al., 2022). Therefore, encouraging corporate site visits is good public policy because the visits ultimately allow more investors to assimilate firm information.

This article is structured as follows. In the following section, we review the related literature and develop our hypotheses. Section 3 describes the data and methodology. In Section 4 we present empirical findings on why corporate site visits impact the bond spread. We conclude in Section 5 with policy recommendations.

## 2. Literature review and hypothesis development

### 2.1. Relevant literature

Hong et al. (2019) show that hedge funds that are visited more frequently perform better, suggesting that hedge funds may be able to gain an information advantage through site visits. Site visits also significantly increase the subsequent trading magnitude of mutual funds, and their trades that rely on communication significantly predict the unexpected earnings of visited firms (Liu et al., 2017). Cheng et al. (2019) document a positive stock price reaction when a firm announces corporate site visits by institutional investors. Collectively, corporate site visits are helpful to a firm's external stakeholders, and site visit content has greater forecasting power in Chinese stock market returns than other economic predictors (Dong et al., 2020). Consequently, site visits improve capital market information efficiency and significantly reduce stock price synchronicity (Chen et al., 2023). Moreover, Li et al. (2022) find that when institutional investors make more corporate site visits before an SEO, they bid higher for the SEO, leading to lower SEO discounts; this effect is more pronounced when institutional investors face higher information uncertainty. This literature mainly focuses on the effect of site visit information diffusion in the equity market.

Another strand of literature concentrates on the effect of private communication on the debt market. Petacchi (2015) documents that although Regulation FD prevents firms from selectively disclosing material information to market professionals in the equity market, firms can still report to banks and rating agencies in the debt market. Thus, firms' disclosure of private communications (such as conference calls) would help improve the ability to predict credit events, which include bankruptcies, interest spreads, and credit rating downgrades (Donovan et al., 2021). Additionally, De-Franco et al. (2023) find that firms' fixed income conference calls usually discuss debt-equity conflict events and credit markets react to these calls, consistent with the calls' providing new information to credit investors. The presence of investor relations decreases (increases) the negative (positive) impact on CDS spreads stemming from bad (good) earnings news, which means that investor relations efforts improve information precision and reduce transparency risk (Kim et al., 2021). In sum, investor relations departments help credit investors assimilate information. As an important investor relations activity, site visits might play an indispensable role in the debt market. Considering China's increase in firm bond issuance and defaults in recent years, we investigate the effect of corporate site visits on the price of bond issues.

### 2.2. Hypothesis development

The extent of information asymmetry between a bond issuer and investors plays an important role in the price of bond issues. To reduce investors' information asymmetry, during the bond issue, bond ratings and covenant qualifications are essential (Kisgen, 2006). Additionally, compared with mandatory disclosure, voluntary disclosure is more informative for credit investors, particularly for firms facing greater information risk and operating uncertainty (Wang and Zhu, 2023). However, the formative information disclosed by firms does not satisfy the demands of bond investors. For instance, investors can obtain helpful soft information during communication with a bookrunner (Krebbes et al., 2021). More investors are now communicating with executives to lessen their information disadvantage (Lundholm et al., 2014). Kim et al. (2021) find that communication with investors helps firms obtain higher credit ratings and fewer covenants when they issue bonds, because these communications offer useful information to credit investors. Accordingly, information acquisition might alleviate bond investors' concerns.

Lu et al. (2010) show that investors charge a significant risk premium for both information uncertainty and information asymmetry. Even if the major holders of firm bonds in the Shenzhen Security Exchange are institutional investors, they still need useful information to make decisions. A comparable case is the private placement secondary equity offer market.<sup>3</sup> Li et al. (2022) demonstrate that information from site visits helps institutional investors enhance their bidding and that the offer price at the issuer level is enhanced. This means that the theory of information asymmetry applies to institutional investor.

We argue that corporate site visits lower the bond spread for several reasons. First, by visiting a firm's headquarters or production

<sup>3</sup> This market is a primary market and most participants are institution investors.

facilities and having face-to-face meetings with top executives, investors can obtain first-hand information of a firm's operations and infer extra up-to-date information through managers' tones, body language, and gestures (Hobson and Mayew, 2012), which undoubtedly reduces information asymmetry between the bond's issuer and its investors. Considering the reduced information disadvantage, investors acquire information more easily, more accurately, and in a more timely fashion (Lawrence, 2013). Corporate site visits not only reduce investors' cost of collecting information but also help investors avoid potential losses in the future. Consequently, investors decrease their demand for a risk premium along as information risk declines, which in turn reduces the bond spread.

Second, investors use soft information from site visits to check the veracity of public information, such as accounting information in financial reports. Therefore, even if institutional investors do not find any new information during the visits, their monitoring of firms' operations and management will exert pressure on managers of visited firms and reduce their tendency to issue biased public information (Su et al., 2021). The decrease in the issuer's adverse selection lowers the investors' risk premium for the bond. Additionally, soft information would help investors to contextualize public information (Roberts et al., 2006). In this case, bond investors face less information risk. Thus, the more corporate site visits by investors, the lower the bond spread.

Third, investors build private relationships with executives of the bond issuer after many site visits. This relationship helps investors to collect information more easily after lending (Petersen and Rajan, 1994). Broadstock and Chen (2021) find that site visits play a private monitoring role that will dissuade managers from dishonest or fraudulent financial practices. These active monitors are helpful for improving corporate governance, enhancing corporate transparency, and reducing information asymmetry (Yang et al., 2020). Essentially, corporate site visits reduce investors' information acquisition costs and lower the moral hazard during the bond holding period. In sum, investors require a lower risk premium after a site visit, which is reflected in lower bond spreads.

Finally, Aslan (2020) uses a comprehensive sample of communication between shareholders and companies and find significant spillover effects on the profits and investments of the target's suppliers after activist intervention. Even if a bond investor does not visit the site of a bond issuer, it can obtain information from analysts' forecast revisions (Güntay and Hackbarth, 2010) or from social networks (Gong and Du, 2022). In that case, the soft information might diffuse from other investors who participated in a site visit. Moreover, the mandatory disclosure of site visit activity allows investors gain relevant information more easily. Investors also observe stock trading after site visits to predict creditors' situations in the bond market (Kecskés et al., 2013). Taken together, the information asymmetry between a bond issuer and investors is lower after a site visit. We expect that site visits decrease the risk premium investors demand and lead to lower bond spreads. This leads to the following main testable hypothesis:

**H1.** More corporate site visits by investors lead to lower bond spreads.

According to the preceding analysis, corporate site visits reduce investors' information asymmetry and costs and allow investors to monitor firm executives more efficiently. As a result, the bond spread is lower after site visits. For firms that supply less information, operational information cannot be timely or accurately transferred to the bond market. The lack of information forces bond investors to spend more time to collect useful information. Further, it is more difficult for investors to monitor executives when there is a shortage of information. Investors can address the lack of information through corporate site visits. Intuitively, the benefits of acquiring firm-specific information through site visits would be higher if the visited firms supply less public information, which negatively affects non-visiting investors' ability to assess corporate performance. In contrast, firms that supply a lot of public information help investors make decisions efficiently (Chen et al., 2023). For instance, successful innovations could induce more disclosure to mitigate information asymmetry between the firm and its investors (Huang et al., 2021), but site visits to such firms may not be that useful because the information has already been made available to market participants. In sum, the effect of information acquisition of corporate site visits is more significant for firms that supply less public information. Therefore, we expect that corporate site visits lower the bond spread lower for firms that supply less public information. We test the following hypothesis:

**H2.** The effect of corporate site visits on bond spreads is more pronounced for firms that supply less public information.

### 3. Research design

#### 3.1. Sample selection

Since 2013, the Shenzhen Security Exchange has required its listed firms to disclose investor corporate site visits within two days of the visit. The disclosure includes the date and time as well as the visitors' identities. On March 4, 2014, the Chaori Solar Energy Science & Technology Co., Ltd. was the first Chinese firm ever to default on its onshore corporate bonds (BBC News, 2014).<sup>4</sup> Therefore, we select the Shenzhen Exchange non-financial listed firms that issued corporate bonds or enterprise bonds from 2014 to 2020 as our sample. Accounting and debt issue information are from the China Stock Market and Accounting Research database. We delete: 1) bonds issued before the initial public offering of stock, 2), bonds not listed on the Shenzhen Exchange, 3) firms in financial distress, and 4) firms with missing accounting and financial information. We winsorize all continuous variables at the 1 % and 99 % levels. The final sample has 614 bonds.

<sup>4</sup> <https://www.bbc.com/news/business-26464901> (accessed March 2, 2023)

**Table 2**  
Variable definitions.

Variables	Definitions
<i>SPREAD</i>	(coupon rate of bond minus Treasury bonds' rate for same maturity) × 100
<i>SITE</i>	Natural logarithm of 1 plus the number of corporate site visits to a firm 30 days before bond issue date
<i>SIZE</i>	The natural logarithm of the firm's book value of assets
<i>LEV</i>	Total debts / total assets
<i>ROA</i>	Net profits / total assets
<i>EXTRA</i>	Extraordinary item / assets
<i>CASHFLOW</i>	Net cash flow from operations / liquid debts
<i>LIQUID</i>	Working capital / liquid assets
<i>ISSUESIZE</i>	Natural logarithm of total amount of specific bond issue
<i>DURATION</i>	Natural logarithm of bond's maturity
<i>RATING</i>	If a bond receives AAA rating, the value is 4, AA+ is 3, AA is 2, AA- is 1 <sup>a</sup>
<i>GUARANTEE</i>	If a bond has a guarantee, the value is 1 and 0 otherwise.
<i>BIG4</i>	If a bond issuer is audited by a Big-4 firm, the value is 1, and 0 otherwise
<i>STATE</i>	If a firm is owned by state, the value is 1, and 0 otherwise
<i>INDEX</i>	If a firm is involved in CSI300 index the value is 1, and 0 otherwise

<sup>a</sup> To be listed on the Shenzhen Security Exchange, the bond must be rated higher than A. Thus, the AA- is the lowest rating in our sample.

**Table 3**  
Summary statistics.

Variables	N	Mean	SD	MIN	P25	P50	P75	MAX
<i>SPREAD</i>	614	2.625	1.340	0.482	1.464	2.531	3.563	5.656
<i>SITE</i>	614	0.211	0.443	0.000	0.000	0.000	0.000	1.946
<i>SIZE</i>	614	23.946	1.580	20.929	22.718	23.884	25.157	28.179
<i>LEV</i>	614	0.598	0.193	0.129	0.468	0.632	0.759	0.892
<i>ROA</i>	614	0.034	0.030	-0.052	0.016	0.028	0.046	0.155
<i>EXTRA</i>	614	0.006	0.009	-0.006	0.001	0.003	0.008	0.045
<i>CASHFLOW</i>	614	0.097	0.255	-0.518	-0.028	0.053	0.168	1.299
<i>LIQUID</i>	614	0.193	0.381	-1.305	0.034	0.294	0.416	0.843
<i>ISSUESIZE</i>	614	20.363	0.858	18.064	19.807	20.500	20.986	22.110
<i>DURATION</i>	614	1.367	0.284	0.693	1.099	1.609	1.609	1.946
<i>RATING</i>	614	3.081	0.907	1.000	2.000	3.000	4.000	4.000
<i>GUARANTEE</i>	614	0.287	0.453	0.000	0.000	0.000	1.000	1.000
<i>BIG4</i>	614	0.124	0.330	0.000	0.000	0.000	0.000	1.000
<i>STATE</i>	614	0.321	0.467	0.000	0.000	0.000	1.000	1.000
<i>INDEX</i>	614	0.293	0.456	0.000	0.000	0.000	1.000	1.000

### 3.2. Methods

We modify Frank and Nezafat (2019)'s model to examine the impact of investor corporate site visits on the spread at the time of bond issuance using Eq. (1):

$$SPREAD_{it} = \alpha_0 + \alpha_1 SITE_{it} + CONTROL_{i,t-1} + \sum MONTH_{\mu} + \sum YEAR_t + \sum IND_v + \varepsilon_{it} \quad (1)$$

where *SPREAD* is the difference of the coupon rate of the issued bond and the Treasury bond rate of the same maturity. *SITE* is the natural logarithm of one plus the number of corporate site visits to a bond issuer made 30 days before the issue date. We predict the coefficient of *SITE* will be significantly negative.

We use a set of control variables in Eq. (1) including the natural logarithm of a firm's book value of assets (*SIZE*), firm financial leverage (*LEV*), return on assets (*ROA*), extraordinary items over total assets (*EXTRA*), cash flow from operating activities scaled by liquid debts (*CASHFLOW*), working capital scaled by liquid assets (*LIQUID*), the natural logarithm of the total amount of a specific bond issue (*ISSUESIZE*), bond maturity (*DURATION*), bond rating (*RATING*), whether the bond issue has a guarantee covenant (*GUARANTEE*), whether the auditor is from a Big-4 audit firm (*BIG4*), whether a firm is state owned (*STATE*), and whether a stock is included on the CSI300 index at that time (*INDEX*). In addition, we include month-, year-, and industry-fixed effects in Eq. (1). To mitigate the impact of reverse causality, we lag the control variables in Eq. (1). Table 2 presents the detailed definitions.

To examine H2, we gauge the level of information supplied by firms from three dimensions: quantity, quality, and timeliness. First, we consider the firm's information quality. Specifically, we estimate the modified Jones model:

$$\frac{TACC_{it}}{TA_{i,t-1}} = \alpha_0 \frac{1}{TA_{i,t-1}} + \alpha_1 \frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{i,t-1}} + \alpha_2 \frac{PPE_{it}}{TA_{i,t-1}} + \varepsilon_{it} \quad (2)$$

where *TACC* is total accruals of year *t* as computed in Dechow et al. (1995), *TA* is total assets,  $\Delta REV$  is change of total revenue from year

**Table 4**  
The impact of institutional investor site visits on bond spread.

Variables	SPREAD			
	(1)		(2)	
	Coeff	t-stat	Coeff	t-stat
<i>SITE</i>	−0.351***	(−2.107)	−0.212***	(−2.392)
<i>SIZE</i>			−0.078	(−0.813)
<i>LEV</i>			1.558***	(3.170)
<i>ROA</i>			−5.716***	(−2.976)
<i>EXTRA</i>			6.155	(1.169)
<i>CASHFLOW</i>			0.155	(0.782)
<i>LIQUID</i>			0.160	(1.062)
<i>ISSUESIZE</i>			−0.122*	(−1.864)
<i>DURATION</i>			−1.313***	(−6.877)
<i>RATING</i>			−0.565***	(−6.450)
<i>GUARANTEE</i>			0.228	(1.416)
<i>BIG4</i>			−0.517**	(−2.171)
<i>STATE</i>			−0.776***	(−5.481)
<i>INDEX</i>			−0.024	(−0.148)
<i>Month</i>	Yes		Yes	
<i>Year</i>	Yes		Yes	
<i>Ind</i>	Yes		Yes	
Adj R <sup>2</sup>	0.190		0.609	
N	614		614	

Notes: Table 3 shows the regression results of Eq. (1). Column (1) presents regression results with month, year, and industry fixed effects. Column (2) presents regression results with the control variables in Eq. (1). Table 1 presents definitions of variables. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

$t-1$  to  $t$ ,  $\Delta REC$  is the change of receivables from year  $t-1$  to  $t$ , and  $PPE$  is the value of property, plant, and equipment at the end of year  $t$ . The absolute values of the residual from Eq. (2), denoted by  $ABSDA$ , capture the magnitude of a firm's earning management. A high  $ABSDA$  means that a firm has low information quality (Kothari et al., 2005). Second, as Khalil et al. (2019) document that annual reports are the most important type of periodic information, a firm's delay in releasing its annual report reflects the timeliness—or lack thereof—of a firm's information disclosure. We use the number of days between the financial statement date and the disclosure date of the firm's annual report ( $TIMELY$ ) to proxy for the timeliness of the supply of information. Last, we postulate that analysts have more professional knowledge about firms, which gives them the ability to integrate information. If analyst forecast accuracy is low, that means that even professionals have not integrated information (Weiss, 2010), and they need more useful information to invest wisely. Hence, we use the absolute value of the average analyst earning forecast deviation scaled by actual earnings to calculate the difficulty of integrating information ( $ACCURATE$ ). If  $ACCURATE$  is higher, the accuracy of analyst forecasts is lower. Then, we use the medians of  $ABSDA$ ,  $TIMELY$ , and  $ACCURATE$  to partition the full sample into a subsample of bond-issuing firms that provide high levels of information and those that provide low levels of information and reexamine Eq. (1).

## 4. Results and discussions

### 4.1. Summary statistics

We present the summary statistics of the sample in Table 3. The mean and standard deviation of  $SPREAD$  are 2.625 and 1.340, respectively. Hence, on average, the coupon rate of firms' bonds is 263 basis points higher than a Treasury bond, with high variation. The mean and standard deviation for  $SITE$  are 0.211 and 0.443, respectively, suggesting that the number of corporate site visits by investors is low. In addition, the median and 75th percentile of  $SITE$  are both zero, indicating that many firms do not host any corporate site visits. The means of  $GUARANTEE$ ,  $BIG4$ ,  $STATE$  and  $INDEX$  are lower than 0.5, which means more than half the bonds do not have guarantee covenants, are not audited by a Big-4 auditor, are not state-owned, and are not included in the CSI300 index.

### 4.2. Multiple regressions

We present the baseline results for Eq. (1) in Table 4. In Column (1), the coefficient of  $SITE$  is negative and significant at the 10 % level without any control variables. In Columns (2) and (3), we show the significance of the coefficients at the 1 % level after controlling for other factors. The results suggest that after corporate site visits, the bond issue spread is lower. The findings are economically significant. The coefficient of  $SITE$  in Column (3) is  $-0.210$ , indicating that if a firm hosts one corporate site visit, the spread of the bond issue decreases by 6.3 basis points (i.e.,  $-0.210 \times \log(1 + 1)$ ). Stated differently, on average, a bonds' spread is approximately 2.4 percentage points lower after one corporate site visit. We interpret the findings to be consistent with the information asymmetry explanation for bond issue spreads. When a firm hosts corporate site visits, investors collect more information from face-to-face communication with executives, leading to lower information asymmetry and mitigating agency conflicts, resulting in a lower

Table 5

The impact of corporate site visits on bond spread with different levels of information supply.

Variables	SPREAD					
	(1) High <i>ABSDA</i>	(2) Low <i>ABSDA</i>	(3) High <i>TIMELY</i>	(4) Low <i>TIMELY</i>	(5) High <i>ACCURATE</i>	(6) Low <i>ACCURATE</i>
<i>SITE</i>	-0.242** (-2.049)	-0.214 (-1.279)	-0.459*** (-4.088)	0.043 (0.344)	-0.347** (-2.588)	-0.041 (-0.321)
<i>SIZE</i>	0.072 (0.620)	-0.209* (-1.753)	0.012 (0.137)	-0.095 (-0.684)	0.092 (0.794)	-0.289** (-2.096)
<i>LEV</i>	1.537** (2.274)	1.304* (1.872)	1.310** (2.277)	1.055 (1.467)	1.366* (1.690)	0.616 (0.802)
<i>ROA</i>	-4.479* (-1.672)	-8.177*** (-2.945)	-5.479** (-2.521)	-6.541* (-1.782)	-9.430*** (-3.035)	-3.312 (-1.373)
<i>EXTRA</i>	5.476 (0.715)	-2.642 (-0.333)	5.948 (0.899)	7.674 (0.973)	6.833 (0.932)	-10.05 (-0.891)
<i>CASHFLOW</i>	0.276 (1.252)	0.507 (1.215)	0.070 (0.355)	0.438 (1.153)	0.823*** (2.898)	-0.049 (-0.153)
<i>LIQUID</i>	0.201 (0.846)	0.082 (0.410)	0.197 (1.192)	-0.102 (-0.261)	0.244 (1.286)	-0.118 (-0.527)
<i>ISSUESIZE</i>	-0.153* (-1.789)	-0.128 (-1.532)	-0.188** (-2.349)	-0.085 (-1.040)	-0.229*** (-2.734)	-0.047 (-0.574)
<i>DURATION</i>	-1.496*** (-5.693)	-1.036*** (-5.329)	-1.166*** (-6.352)	-1.349*** (-5.421)	-1.121*** (-4.729)	-1.295*** (-4.966)
<i>RATING</i>	-0.472*** (-3.948)	-0.512*** (-4.133)	-0.572*** (-5.119)	-0.634*** (-4.906)	-0.882*** (-7.342)	-0.422*** (-3.618)
<i>GUARANTEE</i>	0.360** (2.108)	0.066 (0.260)	0.164 (0.891)	0.292 (1.201)	0.472** (2.101)	0.071 (0.327)
<i>BIG4</i>	-0.809** (-2.254)	-0.402 (-1.548)	-0.303 (-1.327)	-0.701*** (-2.792)	-0.484** (-2.334)	-0.507 (-1.632)
<i>STATE</i>	-1.034*** (-5.268)	-0.650*** (-3.925)	-0.807*** (-4.512)	-0.925*** (-5.247)	-0.590*** (-2.948)	-0.704*** (-3.784)
<i>INDEX</i>	0.050 (0.173)	0.021 (0.120)	-0.003 (-0.015)	0.028 (0.110)	-0.041 (-0.255)	0.266 (1.003)
<i>Month</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.574	0.622	0.642	0.635	0.657	0.615
<i>N</i>	304	303	301	304	280	279

Notes: Table 5 shows the subsample regression results of Eq. (1). Columns (1) and (2) present regression results for high or low accrual earnings management firms, respectively. Columns (3) and (4) present regression results for firms with long or short annual report delays, respectively. Columns (5) and (6) present regression results for low or high analyst forecast accuracy in firms, respectively. Table 2 gives variable definitions. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

bond spread. Our results complement those in Cheng et al. (2019) and Li et al. (2022) regarding the positive impact of corporate site visits on stock price reaction and SEO bidding. The findings support H1. (See Table 4)

The control variables in Table 4, if significant, carry the expected signs. For instance, the coefficients of *SIZE*, *ROA*, *ISSUESIZE*, *DURATION*, *RATING*, *BIG4*, and *STATE* are negative and significant at the 1 % level, which is consistent with intuition. That is, the bond spread is lower when the issuer has more assets, the issuer has a higher rating or profits, the bond is for a larger amount or longer duration, the issuer is audited by a Big-4 firm, or the issuer is state owned. However, *LEV*, and *GUARANTEE* are positive and significant at the 1 %, or 10 % level, meaning that the bond's spread is higher when the issuer is more highly leveraged or the bond has guarantee covenants.

The logic of H2 rests on our expectation that the advantageous effect of corporate site visits would be minimal (more salient) if the firm supplies more (less) information. We use the median of three variables to divide our sample: *ABSDA*, *TIMELY*, and *ACCURATE*.<sup>5</sup> Columns (1) to (6) in Table 5 present the results of the subsample regressions. Consistently across the columns, the subsample of firms that supply low levels of information (firms that issue a smaller annual report, firms that engage in higher earnings management, or firms that have longer delays in issuing annual reports) in Columns (1), (3), and (5) continue to have significantly negative coefficients of *SITE*. In contrast, the same set of coefficients is insignificant for the other subsamples. The results indicate that the advantageous impact of corporate site visits on bond spreads is more pronounced for firms that supply less information. Thus, the findings support H2 and the underlying logic of our paper.

<sup>5</sup> We lose a few observations because some industries do not have a sufficient number of observations in a year to estimate *ABSDA*.

**Table 6**  
Robustness checks.

	Full Sample	High ABSDA	Low ABSDA	High TIMELY	Low TIMELY	High ACCURATE	Low ACCURATE
Part 1: Alternative estimation methods.							
Panel A: Instrumental variable two-stage regression							
Variables				SPREAD			
SITE	-3.422** (-2.347)	-3.249** (-2.503)	-1.987* (-1.810)	-0.968*** (-2.744)	-11.040 (-0.812)	-2.186*** (-3.454)	-4.673 (-1.322)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Under-identification	6.852	6.860	7.804	16.570	0.712	12.594	2.852
Weak identification	7.815	6.743	5.429	17.318	0.347	12.498	1.131
N	614	304	303	301	313	280	279
Panel B: Heckman analysis							
Variables				SPREAD			
SITE	-0.216** (-2.428)	-0.226* (-1.949)	-0.214 (-1.251)	-0.430*** (-4.046)	0.072 (0.579)	-0.323** (-2.378)	-0.054 (-0.406)
MILLS	-0.274 (-0.529)	0.039 (0.047)	-0.603 (-1.388)	1.244*** (2.670)	-1.027** (-2.158)	1.315* (1.835)	-0.810* (-1.812)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.602	0.566	0.623	0.657	0.609	0.647	0.625
N	601	295	301	296	305	271	279
Part 2: Alternative samples							
Panel C: Excluding firms conducting roadshows or online information sessions							
Variables				SPREAD			
SITE	-0.240** (-2.531)	-0.297** (-2.495)	-0.203 (-1.130)	-0.487*** (-3.944)	0.027 (0.205)	-0.377*** (-2.733)	-0.034 (-0.219)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.607	0.568	0.628	0.636	0.615	0.660	0.614
N	576	287	282	285	291	263	260
Panel D: Keeping the largest amount of bond issues within a month							
Variables				SPREAD			
SITE	-0.202** (-2.179)	-0.252** (-1.982)	-0.163 (-1.039)	-0.458*** (-3.962)	0.006 (0.048)	-0.333** (-2.350)	0.018 (0.141)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.606	0.551	0.630	0.648	0.595	0.656	0.614
N	565	279	279	280	285	255	255
Panel E: Excluding enterprise bond samples							
Variables				SPREAD			
SITE	-0.212** (-2.392)	-0.242** (-2.049)	-0.214 (-1.279)	-0.459*** (-4.088)	0.035 (0.284)	-0.347** (-2.588)	-0.041 (-0.321)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.609	0.574	0.622	0.642	0.613	0.657	0.615
N	614	304	303	301	313	280	279
Panel F: Using the propensity score matching samples							
Variables				SPREAD			
SITE	-0.206** (-2.187)	-0.218* (-1.690)	-0.238 (-1.396)	-0.431*** (-3.612)	0.112 (0.803)	-0.412*** (-3.025)	-0.004 (-0.024)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.577	0.597	0.521	0.587	0.605	0.645	0.573
N	400	198	197	200	200	185	185
Panel G: Excluding 2020 observations							
Variables				SPREAD			
SITE	-0.164* (-1.800)	-0.227* (-1.801)	-0.196 (-1.252)	-0.365*** (-3.259)	0.085 (0.689)	-0.313** (-2.262)	-0.001 (-0.006)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.610	0.585	0.626	0.637	0.638	0.691	0.587
N	527	261	260	258	269	244	239
Part 3: Change the metric of the dependent and explanatory variables							
Panel H: Change the metric of the dependent variable							
Variables				SPREAD			
SITE	-0.162* (-1.774)	-0.211* (-1.694)	-0.185 (-1.072)	-0.394*** (-3.376)	0.082 (0.626)	-0.318** (-2.350)	0.009 (0.072)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.608	0.554	0.638	0.682	0.563	0.645	0.638

(continued on next page)

Table 6 (continued)

Part 3: Change the metric of the dependent and explanatory variables							
<i>N</i>	614	304	303	301	313	280	279
Panel I: Change the metric of the explanatory variable							
Variables				<i>SPREAD</i>			
<i>SITE</i>	-0.085** (-2.357)	-0.098** (-2.040)	-0.089 (-1.358)	-0.179*** (-3.855)	0.007 (0.150)	-0.164*** (-3.001)	0.002 (0.030)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj <i>R</i> <sup>2</sup>	0.608	0.573	0.622	0.638	0.613	0.659	0.615
<i>N</i>	614	304	303	301	313	280	279
Panel J: Using the [-25, -1] event window to build the explanatory variable							
Variables				<i>SPREAD</i>			
<i>SITE</i>	-0.223** (-2.189)	-0.285** (-2.000)	-0.187 (-1.037)	-0.566*** (-4.281)	0.026 (0.188)	-0.334** (-2.136)	0.030 (0.188)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj <i>R</i> <sup>2</sup>	0.608	0.574	0.621	0.643	0.613	0.654	0.615
<i>N</i>	614	304	303	301	313	280	279
Panel K: Using the [-35, -1] event window to build the explanatory variable							
Variables				<i>SPREAD</i>			
<i>SITE</i>	-0.214** (-2.551)	-0.247** (-2.118)	-0.213 (-1.448)	-0.433*** (-4.428)	-0.013 (-0.104)	-0.303** (-2.289)	-0.116 (-1.010)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj <i>R</i> <sup>2</sup>	0.610	0.575	0.623	0.643	0.613	0.656	0.616
<i>N</i>	614	304	303	301	313	280	279

Notes: Table 6 presents the results of robustness tests of Eq. (1) using alternative estimation methods, metrics, and samples. Panel A presents the results using the number of mutual fund offices in a province where an issuer is headquartered and the natural logarithm of one plus the average slope in a firms' city within the [-30, -1] event window as instrumental variable to proxy for *SITE*. Panel B uses the Heckman two-stage analysis. Panel C excludes bond issuers with roadshows or online information sessions. Panel D keeps the largest amount of bond issues within a month. Panel E excludes enterprise bond observations. Panel F uses the propensity score matching samples. Panel G excludes 2020 observations. Panel H uses the variable interest rate of bank loans as the minuend to calculate *SPREAD* instead of the interest rate of a Treasury bond. Panel I uses the number of investors at corporate site visits as an explanatory variable. Panel J uses the number of [-25, -1] event windows' site visits to build the explanatory variable. Panel K uses the number of [-35, -1] event windows' site visits to build the explanatory variable. Table 2 presents variable definitions. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

### 4.3. Robustness checks

We conduct several robustness checks. First, in our empirical setting, endogeneity could be a concern. Specifically, one might be concerned that the association between corporate site visits and bond spreads is spurious because there is a reverse causality problem, despite our using an event study. Moreover, the results may be endogenous if they are driven by omitted variables.

We apply two instrumental variables (IVs) in Eq. (1) to address the potential endogeneity. The first is the natural logarithm of one plus the number of mutual fund offices in a province where a bond issuer is headquartered (*FUND\_N*). This captures the degree of agglomeration of institutional investors because firms in a province where mutual funds assemble may find it comparatively easier to attract more investors to participate in site visits. However, considering all the investors will get public information equally, it is difficult for *FUND\_N* to impact bond spreads directly.

The second IV is the natural logarithm of one plus the average slope in the city in which a firm is located (*SLOPE*). Because slope is a geographic factor, it is harder for investors to visit corporate sites to firms located cities with a large slope. However, slope of locations would be unrelated to the specific firm's bond spread, and because it is a natural condition, it could be freely obtained by investors, unlike private information.

We present the results in Panel A of Table 6. For brevity, we do not include the coefficients of control variables from here forward. In Column (1) of Panel A, the coefficients of *SITE* remain negative and significant at the 5 % level for the full sample. In Column (2) to (7), the coefficients of *SITE* are also negative and significant at the 1 % or 5 % level for the subsamples of firms that supply less information. In contrast, most of coefficients of *SITE* are insignificant in the subsample of firms that supply more information. A Chow test shows that the absolute values of coefficients of *SITE* in the low *ABSDA* subsample is smaller than in the high *ABSDA* subsample. The results are similar to those in Table 4 and Table 5. Additionally, the test statistics for under-identification, and the weak instrument suggests that the instrumental variable for investor corporate site visits in two-stage least squares regressions are appropriate.<sup>6</sup>

For our second robustness test, we make the bond issuers in our sample a subsample of all listed firms because other firms may choose equity or bank loans to finance. In that case, we cannot observe firms because they do not issue bonds and therefore our results may suffer from selection bias. To address this endogeneity issue, we employ the Heckman (1976) two-stage procedure. In the first stage, we estimate a Probit regression of a bond issuance on a number of variables that are likely to affect firms' requirements for

<sup>6</sup> The over-identification test of the full sample is insignificant (*p*-value = 0.889), which means we cannot reject the null hypothesis that all the instrumental variables are exogenous.

external funds as well as those that affect the choice of equity versus debt financing. In the first stage, we estimate the identification equation that contributes to a firm's decision to issue bonds as follows:

$$BOND_{it} = \alpha_0 + \alpha_1 SIZE_{i,t-1} + \alpha_2 LEV_{i,t-1} + \alpha_3 ROA_{i,t-1} + \alpha_4 CASHHOLD_{i,t-1} + \alpha_5 CASHFLOW_{i,t-1} + \alpha_6 GAP_{i,t-1} + \alpha_7 LIQUIDRATIO_{i,t-1} + \alpha_8 LISTTIME_{i,t-1} + \alpha_9 STATE_{i,t-1} + \sum YEAR_t + \sum IND_v + \varepsilon_{it} \quad (3)$$

where *BOND* is a dummy variable with a value of 1 if a firm is bond issuer in year *t*, and 0 otherwise; *CASHHOLD* is the ratio of cash holdings to total assets; *GAP* is the net cash flow from financing minus net cash flow from investments and scaled by total assets; and *LISTTIME* is the natural logarithm of (bond issuance date minus stock listing date) / 365. Other variables are defined as in Eq. (1). Essentially, based on the life-cycle theory of the firm, *LISTTIME* is highly correlated with a firm that chooses to issue bonds. Still, it is not related to the bond spread because the age of the firm is public information that could be freely gained by an investor (as opposed to being private information). Then, we recover the inverse Mills ratio (*MILLS*) from Eq. (3) and augment Eq. (1) with *MILLS* to account for the impact of selection bias in the second stage of the Heckman analysis. We present the findings of the second stage in Panel B of Table 6. The coefficients of *SITE* remain negative and significant at the 1 %, 5 %, or 10 % levels for the full sample and the subsamples for firms that supply less information. The results suggest that the selection bias, if any, is not severe. Hence, our findings are robust to potential selection bias.

Third, it is likely that some bond issuers conduct roadshows or online information sessions to communicate with investors. Information from corporate site visits becomes less helpful in these scenarios. We reexamine Eq. (1) using a reduced sample that excludes bond issuers that conduct roadshows or online information sessions. The results in Panel C of Table 6 are qualitatively similar to those in Table 4 and Table 5.

Fourth, because some firms issue more than one bond in a month, our results may be driven by specific firms if they issue many bonds in a short period. For robustness, we keep the largest bond issuance within a quarter for every firm. The results in Panel D of Table 6 reveal findings similar to those in Table 4 and Table 5.

Fifth, our sample contains corporate bonds and enterprise bonds; enterprise bonds are usually issued by state-owned enterprises. In China, investors' risk premiums are different between state-owned enterprises and non-state-owned enterprises. To check the robustness, we exclude samples of enterprise bonds. Panel E of Table 6 presents the results: there are no systemic differences between Table 6 and Table 4 or Table 5.

Sixth, there may be great differences between firms that have had site visits and those that have not had site visits, and the variations of bond spreads may be caused by differences in firms' characteristics rather than site visits. To alleviate this concern, we use control variables in Eq. (1) to construct a propensity score matching sample. We conduct a 1:5 match by firms that have had site visits and those that have not had site visits. Panel F, Table 6 reveals similar findings as in Table 4 and Table 5.

Seventh, based on the lockdown policies of COVID-19 in 2020, the quantity and quality of online contacts would be significantly increase after the COVID-19 restrictions were lifted. We exclude observations from the year 2020 to alleviate the potential impact of the pandemic on our results. The results in Panel G of Table 6 reveal similar findings as those in Table 4 and Table 5.

Eighth, we consider whether the Treasury bond spread may be driven by market sentiment and bias our results. We mitigate the potential bias using *SPREAD\_N* by the coupon rate minus the rate of bank loans of the same maturity as a dependent variable.<sup>7</sup> Panel H of Table 6 presents the results. Except for the low *INSTITUTION* subsample, the coefficients of *SITE* remain negative and significant at the 1 %, 5 %, and 10 % levels for the full sample and for the subsamples of firms that supply less information.

Ninth, we change the metric of corporate site visits as an explanatory variable to see whether this drives our results. For example, a site visit can involve ten investors, but many site visits include one investor. The results would reflect the degree that firms host site visits but not relate to investors' obtaining information. We mitigate the potential bias using the natural logarithm of one plus the number of investors site visits a bond issuer hosted 30 days before the issue date (*SITE\_N*). In Panel I of Table 6, we find that the coefficient of *SITE\_N* remains negative and significant at the 1 % level and at the 5 % level for the full sample and the subsamples of firms that supply less information.

Last, we calculate *SITE* using the number of corporate site visits within 30 days before the bond issuance date. For robustness, we change the event window to [-25, -1] and [-35, -1] to redefine the explanatory variables (*SITE\_25* and *SITE\_35*). The results in Panels J and K of Table 6 reveal similar findings as those in Table 4 and Table 5.

#### 4.4. Do site visits affect different types of investors differently?

Major corporate bonds holders in the Shenzhen Security Exchange include banks, securities companies, mutual funds, insurance companies, and trust companies. Different types of investors may have other means of acquiring information than through site visits. For example, a bank may have superior information about the issuer through its relationship as a lender and does not obtain the information through a site visit. But, mutual funds might gain useful information from a site visit (Li et al., 2022). Considering that the information from site visits may be useless to some bond investors, we categorize institutions into banks (*SITE\_B*), securities companies (*SITE\_S*), mutual funds (*SITE\_MF*), insurance companies (*SITE\_I*), trust companies (*SITE\_TC*), and others (*SITE\_O*). We use the natural logarithm of one plus the number of specific type of investor that visited a bond issuer's site 30 days before the issue date as independent variable and reexamine Eq. (1).

<sup>7</sup> The number of observations does not increase by much because the maturity of some bonds do not match that of the Treasury bonds.

**Table 7**  
The impact of site visits made by different types of institutions on bond issuance spread.

Variables	SPREAD <sub>D</sub>					
<i>SITE_B</i>	-0.220					
	(-0.735)					
<i>SITE_S</i>		-0.137**				
		(-2.144)				
<i>SITE_MF</i>			-0.124*			
			(-1.911)			
<i>SITE_I</i>				-0.082		
				(-0.450)		
<i>SITE_TC</i>					-0.684***	
					(-2.748)	
<i>SITE_O</i>						-0.095*
						(-1.822)
<i>SIZE</i>	-0.083	-0.080	-0.084	-0.084	-0.076	-0.082
	(-0.863)	(-0.828)	(-0.864)	(-0.868)	(-0.777)	(-0.847)
<i>LEV</i>	1.583***	1.556***	1.550***	1.581***	1.564***	1.588***
	(3.218)	(3.141)	(3.120)	(3.205)	(3.165)	(3.221)
<i>ROA</i>	-5.685***	-5.599***	-5.588***	-5.616***	-5.539***	-5.640***
	(-2.925)	(-2.923)	(-2.928)	(-2.890)	(-2.864)	(-2.944)
<i>EXTRA</i>	4.254	5.169	4.779	4.255	3.962	4.740
	(0.799)	(0.988)	(0.897)	(0.798)	(0.749)	(0.889)
<i>CASHFLOW</i>	0.167	0.142	0.151	0.157	0.148	0.163
	(0.806)	(0.713)	(0.761)	(0.766)	(0.718)	(0.810)
<i>LIQUID</i>	0.154	0.155	0.159	0.153	0.151	0.167
	(0.999)	(1.022)	(1.040)	(0.996)	(0.980)	(1.090)
<i>ISSUESIZE</i>	-0.123*	-0.122*	-0.122*	-0.125*	-0.121*	-0.123*
	(-1.872)	(-1.877)	(-1.871)	(-1.896)	(-1.837)	(-1.866)
<i>DURATION</i>	-1.317***	-1.310***	-1.312***	-1.319***	-1.308***	-1.313***
	(-6.964)	(-6.914)	(-6.916)	(-6.959)	(-6.935)	(-6.923)
<i>RATING</i>	-0.573***	-0.570***	-0.568***	-0.574***	-0.574***	-0.569***
	(-6.556)	(-6.519)	(-6.445)	(-6.581)	(-6.592)	(-6.465)
<i>GUARANTEE</i>	0.228	0.225	0.222	0.228	0.226	0.226
	(1.412)	(1.396)	(1.366)	(1.410)	(1.394)	(1.396)
<i>BIG4</i>	-0.488**	-0.507**	-0.494**	-0.477**	-0.478**	-0.497**
	(-2.037)	(-2.134)	(-2.070)	(-2.012)	(-2.002)	(-2.093)
<i>STATE</i>	-0.775***	-0.776***	-0.773***	-0.770***	-0.786***	-0.774***
	(-5.429)	(-5.455)	(-5.383)	(-5.376)	(-5.466)	(-5.453)
<i>INDEX</i>	-0.039	-0.037	-0.028	-0.037	-0.058	-0.034
	(-0.233)	(-0.227)	(-0.167)	(-0.220)	(-0.345)	(-0.207)
<i>Month</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.605	0.608	0.607	0.605	0.607	0.606
<i>N</i>	614	614	614	614	614	614

Notes: Table 7 shows the regression results of Eq. (1). Column (1) presents regression results that use the number of banks at corporate site visits as an explanatory variable. Column (2) presents regression results that use the number of securities companies at corporate site visits as an explanatory variable. Column (3) presents regression results that use the number of mutual funds at corporate site visits as an explanatory variable. Column (4) presents regression results that use the number of insurance companies at corporate site visits as an explanatory variable. Column (5) presents regression results that use the number of trust companies at corporate site visits as an explanatory variable. Column (6) presents regression results that use the number of other investors at corporate site visits as an explanatory variable. Table 2 presents definitions of variables. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

We present the regression results for the different types of investors in Table 7. In Columns (1) and (5), the coefficients of *SITE\_B* and *SITE\_I* are insignificant. In Column (2) to (4) the coefficients of *SITE\_S*, *SITE\_MF*, and *SITE\_TC* are negative and significant. Additionally, the coefficient of *SITE\_O* is significantly negative in Column (6). These results mean that information from site visit help most types of bond investors to make decisions, but banks gain information about the bond issuer through lending rather than through site visits. These finding are similar to the results found in (Li et al., 2022) for different types of investors in seasoned equity offerings.

#### 4.5. Do investors make more-rational decisions after a site visit?

As described in the introduction, bond defaults in China easily affect the Chinese bond market. If the number of bond defaults increases in a short period, investors would seek a higher risk premium. Additionally, Baaquie and Karim (2023) document that the volatility of the bond market also affects investors' behavior in bond issues. But the useful information from corporate site visits would reduce the information uncertainty and help investors select low-risk firms during those periods. To investigate whether investors make more rational decisions after a site visit, we divide our sample based on the median default number and the volatility of the bond

**Table 8**  
Do investors make more-rational decisions after site visits?

Variables	SPREAD			
	(1) High default	(2) Low default	(3) High volatility	(4) Low volatility
<i>SITE</i>	-0.313** (-2.433)	-0.069 (-0.503)	-0.227** (-1.979)	-0.078 (-0.544)
<i>SIZE</i>	-0.112 (-0.914)	0.029 (0.268)	-0.017 (-0.131)	-0.134 (-1.400)
<i>LEV</i>	1.882*** (2.668)	0.952 (1.518)	1.700*** (2.829)	1.690*** (3.177)
<i>ROA</i>	-8.220*** (-3.080)	-3.202 (-1.467)	-8.114*** (-3.318)	-3.348 (-1.390)
<i>EXTRA</i>	3.208 (0.385)	7.485 (1.157)	11.209 (1.501)	1.095 (0.191)
<i>CASHFLOW</i>	-0.044 (-0.142)	0.297 (1.151)	0.430 (1.584)	-0.069 (-0.248)
<i>LIQUID</i>	0.108 (0.564)	0.242 (1.094)	0.237 (1.239)	0.120 (0.616)
<i>ISSUESIZE</i>	-0.081 (-1.023)	-0.136 (-1.540)	-0.284*** (-3.369)	0.023 (0.270)
<i>DURATION</i>	-1.275*** (-6.134)	-1.398*** (-5.366)	-1.178*** (-4.757)	-1.302*** (-6.621)
<i>RATING</i>	-0.696*** (-5.056)	-0.554*** (-4.757)	-0.583*** (-4.483)	-0.488*** (-5.055)
<i>GUARANTEE</i>	0.480* (1.742)	0.287 (1.398)	0.317 (1.475)	0.037 (0.201)
<i>BIG4</i>	-0.551** (-2.176)	-0.779** (-2.327)	-0.555* (-1.727)	-0.726*** (-3.509)
<i>STATE</i>	-0.716*** (-4.561)	-0.753*** (-4.009)	-0.634*** (-3.191)	-0.900*** (-6.229)
<i>INDEX</i>	0.224 (1.275)	-0.086 (-0.330)	0.010 (0.051)	-0.097 (-0.521)
<i>Month</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.648	0.561	0.620	0.633
<i>N</i>	338	276	311	303

Notes: Table 8 shows the subsample regression results of Eq. (1). Columns (1) and (2) present regression results for firms with high and low bond defaults in a specific month, respectively. Columns (3) and (4) present regression results for periods of high and low volatility in the bond market, respectively. Table 2 presents variable definitions. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

market in a specific month. In that situation, the effect of site visits on bond spreads would be more pronounced in times of higher defaults or higher volatility.

Table 8 presents the results of the subsample regression. In Columns (1) and (2), the coefficients of *SITE* are significantly negative in periods with a high number of defaults but insignificant in periods with a low number of defaults. Additionally, the coefficients of *SITE* are significantly negative in high-volatility periods and insignificant in low-volatility periods shown in Columns (3) and (4). These findings indicate that site visits help push doubt out of investors' minds. Consequently, the risk premium required by investors is lower during the high-risk periods after a corporate site visit. These results support our basic logic that site visits help investors obtain useful information and make more-rational decisions.

#### 4.6. Do investors gain truthful information from corporate site visits?

While it is clear that corporate site visits by investors decrease bond spreads at the time of issue, Bowen et al. (2018) documents that the issuing firm selectively discloses positive information. It is unclear that the reduction of the risk premium is caused by investors' acquiring useful information or being blinded by firm executives' positive spin. To study whether investors gain truthful information from corporate site visits, we use two methods to divide our sample: financial constraints as calculated by Kaplan and Zingales (1997) (*FC*) and investment efficiency as set forth in Richardson (2006).<sup>8</sup> Considering the true financial requirements are higher in firms with high financial constraints or underinvestment, if investors gain useful information from a site visit, they would reduce their risk premium for those firms.

Columns (1) and (2) of Table 9 present the result of subsamples divided by the median of *FC*. The coefficient on the high *FC*

<sup>8</sup> We lose a few observations because some variables have missing values when we estimate investment efficiency.

**Table 9**  
Whether investors obtain truthful information through site visits.

Variables	SPREAD			
	(1) High FC	(2) Low FC	(3) Underinvestment	(4) Overinvestment
<i>SITE</i>	-0.348*** (-2.847)	0.059 (0.537)	-0.365*** (-3.182)	-0.039 (-0.402)
<i>SIZE</i>	-0.128 (-0.872)	-0.090 (-1.022)	0.030 (0.294)	-0.098 (-0.831)
<i>LEV</i>	2.281** (2.151)	0.833 (1.276)	0.983 (1.535)	1.866*** (3.097)
<i>ROA</i>	-7.570* (-1.750)	-4.402** (-2.484)	-5.890** (-2.267)	-6.691** (-2.574)
<i>EXTRA</i>	-3.640 (-0.383)	8.254 (1.326)	-4.565 (-0.742)	19.309*** (2.942)
<i>CASHFLOW</i>	0.154 (0.409)	0.012 (0.053)	0.164 (0.642)	0.324 (1.216)
<i>LIQUID</i>	0.139 (0.635)	0.168 (0.802)	0.094 (0.378)	0.103 (0.500)
<i>ISSUESIZE</i>	-0.001 (-0.010)	-0.174* (-1.969)	-0.239*** (-3.327)	0.006 (0.068)
<i>DURATION</i>	-1.162*** (-4.836)	-1.036*** (-4.402)	-1.284*** (-5.278)	-1.179*** (-6.503)
<i>RATING</i>	-0.593*** (-4.552)	-0.568*** (-4.650)	-0.422*** (-3.758)	-0.811*** (-7.888)
<i>GUARANTEE</i>	0.400** (2.041)	0.128 (0.579)	0.228 (1.214)	0.262 (1.265)
<i>BIG4</i>	-0.688* (-1.792)	-0.256 (-1.096)	-0.773** (-2.365)	-0.368 (-1.534)
<i>STATE</i>	-0.890*** (-4.523)	-0.422*** (-2.844)	-0.959*** (-6.082)	-0.632*** (-3.531)
<i>INDEX</i>	0.071 (0.362)	-0.061 (-0.377)	0.216 (0.927)	-0.153 (-0.875)
<i>Quarter</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.615	0.586	0.590	0.678
<i>N</i>	289	290	325	289

Notes: Table 9 shows the subsample regression results of Eq. (1). Columns (1) and (2) present regression results for firms with high and low financial constraints, respectively. Columns (3) and (4) present regression results for underinvestment and overinvestment of firms, respectively. Table 2 provides variable definitions. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

subsample is significant, but the coefficient on the low *FC* subsample is not. In Columns (3) and (4) of Table 9, the coefficient is only significant in the underinvestment subsample. These findings mean that truthful information from site visits help investors remove doubt about high-*FC* issuers and discriminate against the issuers that need more investment funds. Therefore, the impact of corporate site visits on the bond spread is more pronounced in high-*FC* and underinvested firms. The basic logic of our paper is confirmed.

#### 4.7. Do corporate site visits help close the information gap caused by macro factors?

Our findings in Tables 4, 5, and 6 suggest that corporate site visits provide useful information to investors and consequently, significantly decrease bond spreads. Because investors' demand for information is higher when there is higher economic policy uncertainty, and longer distances from the Exchange slow the speed of information transfer and decrease the supply of information, we use two exogenous variables to divide our sample: the index of economic policy uncertainty (*EPU*), constructed monthly as in Baker et al. (2016), and the geographic distance between the headquarters of the issuer and the Shenzhen Security Exchange (*DISTANCE*).

We report the findings in Table 10. The coefficients of *SITE* are negative and significant in high *EPU* months and in distant firms. The findings suggest that the impact of site visits on the bond spread is more pronounced in high *EPU* months or in firms that are far from the Exchange. We interpret the findings as meaning that corporate site visits fulfill the demand for information and deliver the information more quickly. Therefore, the risk premium for investors is lower. Hence, the findings are consistent with our logic.

#### 4.8. The complementary effect of site visits and market intermediaries

Henderson and Tookes (2012) document that market intermediaries such as underwriters or bond raters bridge issuers and investors. In this section, we are interested in the complementary effect of corporate site visits and market intermediaries. Normally, an intermediary with a good reputation prefers to provide objective information. But intermediaries with a poor reputation may release

**Table 10**

The effect of the information gap caused by macro factors on the relationship between a site visit and the bond spread at the time of issue.

Variables	SPREAD			
	(1)	(2)	(3)	(4)
	High <i>EPU</i>	Low <i>EPU</i>	Long <i>DISTANCE</i>	Short <i>DISTANCE</i>
<i>SITE</i>	-0.276** (-2.090)	-0.124 (-1.027)	-0.317** (-2.233)	-0.085 (-0.785)
<i>SIZE</i>	-0.140 (-1.151)	-0.015 (-0.139)	0.094 (0.929)	-0.221* (-1.687)
<i>LEV</i>	1.410* (1.875)	1.510** (2.579)	2.159*** (3.552)	1.013 (1.425)
<i>ROA</i>	-9.693*** (-2.759)	-2.808 (-1.360)	-4.557* (-1.815)	-6.746** (-2.556)
<i>EXTRA</i>	1.303 (0.170)	12.890** (2.141)	20.716*** (3.068)	-5.232 (-0.777)
<i>CASHFLOW</i>	0.049 (0.180)	0.156 (0.607)	0.315 (1.116)	-0.138 (-0.413)
<i>LIQUID</i>	-0.068 (-0.366)	0.354 (1.532)	0.360** (2.052)	0.062 (0.229)
<i>ISSUESIZE</i>	-0.117 (-1.371)	-0.122 (-1.492)	-0.177** (-2.191)	0.003 (0.028)
<i>DURATION</i>	-1.234*** (-5.867)	-1.343*** (-5.222)	-1.008*** (-4.272)	-1.572*** (-5.169)
<i>RATING</i>	-0.574*** (-4.583)	-0.510*** (-4.341)	-0.479*** (-4.020)	-0.615*** (-5.281)
<i>GUARANTEE</i>	0.347 (1.318)	0.226 (1.183)	0.192 (1.018)	0.338 (1.508)
<i>BIG4</i>	-0.627*** (-2.720)	-0.637** (-1.983)	-0.556* (-1.714)	-0.436 (-1.615)
<i>STATE</i>	-0.792*** (-4.795)	-0.772*** (-3.867)	-1.039*** (-5.005)	-0.687*** (-3.614)
<i>INDEX</i>	0.079 (0.458)	-0.151 (-0.594)	-0.238 (-1.483)	0.148 (0.464)
<i>Month</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.631	0.584	0.624	0.647
<i>N</i>	311	303	308	306

Notes: Table 10 shows the subsample regression results of Eq. (1). Columns (1) and (2) present regression results for observations in period of high and low economic policy uncertainty, respectively. Columns (3) and (4) present regression results for firms' headquarters being far away from the Shenzhen Security Exchange and close to the Shenzhen Security Exchange, respectively. Table 2 gives variable definitions. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

information based on self-interest (Nikolova et al., 2020). Soft information gained from corporate site visits would help rid investors of their dependence on market intermediaries. We use the ranking of underwriters issued by the China Securities and Regulatory Commission (CSRC)<sup>9</sup> and the ranking of the bonds' rater issued by the Insurance Asset Management Association of China (IAMAC)<sup>10</sup> to capture the reputation of underwriters and bonds raters; we divide our sample by median ranking.<sup>11</sup>

In Table 11, we present the results of the complementary effect of corporate site visits and market intermediaries. In Columns (1) to (3), the coefficients of *SITE* are negative but significant for underwriters or bond raters with a poor reputation. The implication is that corporate site visits eliminate the information uncertainty when investors deal with market intermediaries with a poor reputation. This finding confirms the existence of a complementary effect of site visits and market intermediaries and supports the logic about investors' obtaining soft information from site visits.

## 5. Conclusion

Leveraging the data of corporate site visits, we study the impact of corporate site visits by investors on bond spreads at the time of issuance. The findings suggest that investors lower their risk premium after corporate site visits, which reduces the bond spread. Moreover, this effect is more pronounced when firms supply insufficient information or when the market demands higher levels of information. The results are robust to alternative metrics of dependent or explanatory variables and after accounting for endogeneity.

<sup>9</sup> <http://www.csrc.gov.cn/csrc/>

<sup>10</sup> <https://www.iamac.org.cn/>

<sup>11</sup> If there is more than one underwriter for a specific bond, we use mean rank to capture reputation. Additionally, we lose a few observations because some underwriters did not receive a rating from the CSRC.

**Table 11**  
The impact of corporate site visits on the bond spread with intermediaries with different reputations.

Variables	SPREAD			
	(1)	(2)	(3)	(4)
	Poor-reputation underwriter	Good-reputation underwriter	Poor-reputation rater	Good-reputation rater
<i>SITE</i>	-0.209** (-2.204)	0.040 (0.123)	-0.246** (-2.030)	-0.115 (-0.788)
<i>SIZE</i>	-0.076 (-0.804)	-0.005 (-0.030)	0.021 (0.176)	-0.079 (-0.751)
<i>LEV</i>	1.739*** (3.435)	-0.375 (-0.307)	1.118 (1.646)	1.557** (2.296)
<i>ROA</i>	-3.985** (-2.019)	-4.547 (-1.209)	-6.248** (-2.451)	-1.079 (-0.390)
<i>EXTRA</i>	4.499 (0.875)	-18.411 (-1.076)	-2.283 (-0.341)	21.947*** (2.795)
<i>CASHFLOW</i>	0.158 (0.806)	-1.621*** (-2.745)	-0.176 (-0.708)	0.213 (0.853)
<i>LIQUID</i>	0.112 (0.712)	0.275 (0.701)	0.245 (1.509)	0.051 (0.196)
<i>ISSUESIZE</i>	-0.187*** (-3.061)	0.041 (0.320)	-0.202** (-2.256)	-0.099 (-1.093)
<i>DURATION</i>	-1.266*** (-6.245)	-0.717*** (-2.778)	-1.246*** (-5.388)	-1.425*** (-5.816)
<i>RATING</i>	-0.618*** (-6.654)	-0.111 (-0.531)	-0.442*** (-4.176)	-0.767*** (-7.074)
<i>GUARANTEE</i>	0.310* (1.834)	-0.205 (-0.568)	-0.027 (-0.129)	0.534*** (2.857)
<i>BIG4</i>	-0.305 (-1.356)	-1.137*** (-3.857)	-0.391 (-1.509)	-0.585** (-2.372)
<i>STATE</i>	-0.803*** (-5.332)	-1.028*** (-4.391)	-0.762*** (-4.081)	-0.662*** (-4.358)
<i>INDEX</i>	0.091 (0.520)	-0.776*** (-2.950)	-0.112 (-0.601)	0.017 (0.090)
<i>Quarter</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<i>Ind</i>	Yes	Yes	Yes	Yes
<i>Adj R<sup>2</sup></i>	0.600	0.742	0.547	0.709
<i>N</i>	509	105	308	297

Notes: Table 11 shows the subsample regression results of Eq. (1). Columns (1) and (2) present regression results for issuers that have underwriters with good and poor reputations, respectively. Columns (3) and (4) present regression results for bond raters with good and poor reputations, respectively. Table 2 provides definitions of variables. \*\*\*, \*\*, and \* indicate significance at the 1 %, 5 %, and 10 % levels, respectively. *t*-statistics in parentheses are calculated with standard errors clustered at the firm level.

Furthermore, securities companies, mutual funds, and trust companies gain more information from site visits than banks or insurance companies. Additional analyses show that investors distinguish the company's true financial requirements accurately through site visits and reduce the additional information risk caused by information provided by market intermediaries with a poor reputation. The findings are consistent with the information asymmetry explanation of bond pricing. When investors visit corporate sites they can collect soft information about the issuer and lower their risk premium, consequently reducing bond spreads.

Our results provide helpful corporate and public policy guidance. Firms lower their financial costs of issuing bonds by hosting more corporate site visits or inviting more investors to participate in them. For bond investors, corporate site visits provide value-added information to guide their investment decisions. All else being the same, these investors reduce their risk premium. Most importantly, there is a complementary effect between corporate site visits and market intermediaries. Our findings suggest that it would be helpful for regulatory authorities to encourage corporate site visits to enhance information flow in the capital formation process. Such public policy would be an effective way to alleviate information asymmetry between the market and listed firms.

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### CRedit authorship contribution statement

**Haoyang Li:** Conceptualization. **Yanqi Sun:** Writing – review & editing. **Wei Cai:** Methodology. **Jingwei Chen:** Funding acquisition.

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