



ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

International Review of Economics and Finance

journal homepage: www.elsevier.com/locate/irefInvestor-Enterprise Interactions and Corporate Risk-Taking[☆]Huan Liu^a , Yanling Jiang^a, Yiwei Kan^{b,*}, Dongmin Kong^c, Ji (George) Wu^d^a School of Economics, Wuhan Textile University, Hubei, China^b College of Economics and Management, Hubei University of Arts and Science, Hubei, China^c School of Finance, Zhongnan University of Economics and Law, Hubei, China^d School of Accountancy, Economics and Finance, Massey University, Auckland, New Zealand

ARTICLE INFO

JEL classification:

D21
D83
G14

Keywords:

Investor-enterprise interactions
Corporate risk-taking
Market information environment
External monitoring

ABSTRACT

The extent of corporate risk-taking serves as a fundamental basis for corporate decision-making, significantly influencing firms' financing, investment, and operational strategies. This study examines how investor-enterprise interactions influence corporate risk-taking using Q&A data from interactive investor platforms in China, covering listed companies from 2010 to 2020. The findings show that such interactions reduce corporate risk-taking. The results remain robust after multiple endogeneity tests and a series of robustness checks. The effect is more significant in private firms and high-tech industries. Mechanism analyses suggest that investor–enterprise interactions lower corporate risk-taking by enhancing external monitoring, improving the information environment, and influencing managerial risk attitudes. This research contributes to the literature on investor-enterprise interactions and corporate risk-taking, offering theoretical and empirical insights for policymakers aiming to enhance market information environments and support the high-quality development of capital markets.

1. Introduction

Risk-taking constitutes a fundamental aspect of strategic decision-making within enterprises, reflecting their degree of risk tolerance and management capabilities in the face of uncertainty, which is directly linked to long-term survival and development. A heightened level of risk-taking can facilitate greater returns on investment for firms as they enhance their competitiveness through continuous exploration of new technologies and markets. However, an excessive pursuit of high-risk returns may result in imbalances in resource allocation, financial risks, and deviations from long-term strategic objectives, thereby jeopardizing overall business sustainability (Acharya et al., 2011; Boubakri et al., 2013). Conversely, a lower level of risk-taking can ensure stability in existing resources, enabling enterprises to better withstand economic fluctuations and market changes while mitigating financial losses associated with unsuccessful high-risk investments. Nonetheless, adopting a low-risk strategy may render firms more conservative in resource allocation, potentially stifling innovation investments and growth opportunities—ultimately constraining their capacity to

[☆] We acknowledge the seminar participants at Zhongnan University of Economics and Law for their helpful suggestions. We also acknowledge the financial support from the Major Project of National Social Science Foundation of China (21ZDA010), the National Natural Science Foundation of China (71991473; 71772178), the Innovation and Talent Base for Digital Technology and Finance (B21038), and General Project of Wuhan Textile University Special Fund (2025347). All errors are our own.

* Corresponding author.

E-mail addresses: liuhxd@foxmail.com (H. Liu), jiangyl8903@163.com (Y. Jiang), kanyw15971052703@163.com (Y. Kan), Kongdongmin@hotmail.com (D. Kong), j.wu1@massey.ac.nz (J.G. Wu).

<https://doi.org/10.1016/j.iref.2026.105443>

Received 26 October 2025; Received in revised form 9 April 2026; Accepted 24 May 2026

Available online 25 May 2026

1059-0560/© 2026 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

expand into new businesses and markets (John et al., 2008; Habib & Hasan, 2017). Therefore, amidst an ever-evolving market environment, achieving value maximization through effective risk-taking that balances risk and return has emerged as a focal point for both investors and enterprises.

Existing research suggests a significant relationship between the internal governance structures of enterprises and their risk-taking levels. Faccio et al. (2011) indicated that a higher concentration of major shareholders' holdings correlates with a lower risk attitude among enterprises. Variations in state ownership and structure are also strongly associated with firms' willingness to engage in risk-taking. For instance, private enterprises often exhibit a more aggressive stance when making investment decisions regarding risky projects, as they are less constrained by governmental policy burdens. An increase in the proportion of foreign ownership also tends to elevate corporate risk-taking levels (Boubakri et al., 2013; Connelly et al., 2010). Additionally, the professional experience and personality traits of corporate management significantly impact the level of risk-taking within firms. Management backgrounds—encompassing military, political, financial, academic, and international experiences—can lead to varying attitudes toward risk (Benmelech & Frydman, 2015; Faccio, 2006; Francis et al., 2015; Güner et al., 2008; Malmendier et al., 2011). Furthermore, male managers generally display a greater propensity for risk-taking compared to their female counterparts (Faccio et al., 2016). Changes in the external environment of enterprises are intricately linked to the extent of corporate risk-taking, factors such as macroeconomic conditions, creditor protection mechanisms, analyst scrutiny, and regional cultural influences also play a crucial role in shaping corporate risk-taking behavior (John et al., 2008; Hilary & Hui, 2009; Acharya et al., 2011; Li et al., 2013; Tao et al., 2024).

While numerous studies have examined the factors influencing corporate risk-taking, there remains a need for greater attention to how investors, particularly individual investors, impact this behavior. China's capital market is still in a developmental stage, with individual investors constituting a significant proportion of the market. By the end of 2022, individual investors accounted for 99% of investor accounts in China's A-share market, starkly contrasting with the investor structure, which is predominantly characterized by institutional investors in other mature capital markets.¹In contrast to larger investors, such as institutions, individual investors generally lack advantages in capital and access to information, which limits their participation in corporate management decisions. Specifically, individual investors encounter difficulties in directly influencing corporate governance through mechanisms such as electing board members, attending shareholder meetings, or submitting shareholder proposals. Instead, they often rely on trading behaviors characterized by “voting with their feet” within the secondary market to create price fluctuation pressure on stocks and thus indirectly affect firms' decision-making.

As stakeholders within the firm, individual investors are motivated and inclined to understand the firm's risk preferences. On January 1, 2010, the Shenzhen Stock Exchange initiated the “Interaction-E” platform to facilitate information interchange between individual investors and firms. Analogously, on July 5, 2013, the Shanghai Stock Exchange inaugurated “Shanghai E-Interaction”. These platforms empower individual investors to directly interface with enterprise managers regarding their concerns and inquiries. As per the Blue Book on Investor Protection in China's Capital Market (2021), the cumulative visitation to “Shanghai E-Interaction” amounted to 1.48 billion, while “Interaction-E” garnered approximately 900 million visits. Through this nascent communication modality, individual investors actively monitor firms' decision-making and performance, thereby instituting effective external surveillance of corporate management. Consequently, this paper delves into the correlation between investor information interaction and corporate risk-taking based on the Q&A records from these investor-enterprise interaction platforms.

In comparison to the existing literature, this paper contributes in three main aspects. Firstly, while prior studies primarily focus on firm-level behaviors such as earnings management (Li et al., 2023) and investment efficiency (Xu et al., 2024), this paper shifts the focus to corporate risk-taking, which reflects the outcome of managerial decisions under uncertainty and is commonly captured by performance volatility (Boubakri et al., 2013). Unlike behavioral measures, risk-taking captures the aggregate consequences of strategic choices and governance mechanisms, and its response to IEs is not theoretically predetermined (Dechow et al., 2010; Tucker & Zarowin, 2006). Building on this perspective, this paper adopts investor–enterprise interactions (IEIs) on platforms as a novel lens to examine corporate risk management and investigates how these interactions shape firms' risk preferences. Consequently, this study contributes to the advancement of current research on the determinants influencing corporate risk-taking. Secondly, this paper elucidates the relationship between IEs and corporate risk-taking, thereby equipping enterprise managers with a deeper understanding of investors' expectations and market reactions during investment decision-making and risk management processes, thereby expanding the literature on the impact of external information systems on corporate management behavior. This expands research on the effects of external information systems on corporate governance. Thirdly, this study reveals that increased external attention from retail investors promotes external monitoring and improves the information environment. These findings carry significant implications for policymakers and regulators in China, helping to achieve policy objectives such as sustaining enterprise growth and enhancing capital market efficiency.

The organization of the subsequent sections of this paper is as follows: the second section provides an overview of the institutional background, literature review, and relevant hypothesis; the third section outlines sample selection and research design; the fourth section presents empirical analysis; the fifth section examines the mechanism analysis; and the sixth section concludes with key findings and associated policy recommendations.

¹ http://www.chinaclear.cn/zdjs/tjnb/center_scsj_tlist.shtml.

2. Institutional Background, theoretical analysis and hypothesis

2.1. Institutional background

The Chinese capital market was established relatively late and remains in a developmental stage. The overall information environment within the market is suboptimal. Individual investors, as significant participants in China's capital market, face constraints due to their limitations in information acquisition channels and processing capabilities, which hinder their ability to timely access and interpret pertinent information regarding corporate business decisions, thereby restricting the effectiveness of their involvement in corporate governance. To enhance communication channels between individual investors and corporate management while mitigating the issue of information asymmetry, On October 1, 2010, the Shenzhen Stock Exchange introduced an online interactive platform for mutual investors, termed "Interactive E". Subsequently, on July 5, 2013, the Shanghai Stock Exchange launched its own platform known as "Shanghai E-Interactive".

The online mode of investor-enterprise communication offers greater advantages than traditional methods. The introduction of online investor information platforms effectively reduces communication costs for individual investors. These platforms can be accessed via mobile phones or computers at any time, allowing investors to pose questions directly to corporate management and obtain relevant information. Consequently, individual investors benefit from lower information costs and improved timeliness. Moreover, regular company reports are often lengthy and filled with technical jargon, making it difficult for individual investors to identify key information. In contrast, interactive platforms facilitate Q&A exchanges between investors and company management, effectively addressing the personalized information needs of individual investors.

Secondly, while individual investors may also participate in discussions about a company's operations on informal channels such as stock forums or social media platforms like Weibo, these avenues often serve primarily as outlets for personal sentiments rather than providing substantive content or valuable insights. Conversely, "Interaction-E" and "Shanghai E-Interaction" are official online interaction platforms established by stock exchanges. These platforms mandate that listed companies allocate dedicated personnel to address inquiries raised on the platforms and require regular assessments of the quality of the information exchange process. According to "the Assessment Measures for Information Disclosure of Listed Companies on the Shenzhen Stock Exchange", annual ratings for listed companies' disclosures are significantly influenced by their responsiveness—both timely and effective—to investor queries via "Interaction-E", as well as whether they address important concerns through formal announcements.² Similarly, the Shanghai Stock Exchange's evaluation method emphasizes maintaining high-quality interactions within its platform.³

Thirdly, not only do individual investors have opportunities for direct communication with enterprise management through these interactive platforms, but they can also review the communication records of other participants, allowing them to gain a more comprehensive understanding of business decisions, strategic changes, and managerial dynamics. The transparency provided by these platforms enhances both the depth and breadth of information available on enterprises.

2.2. Information and corporate risk-taking

Corporate risk-taking involves weighing expected returns against associated risks when decision-makers select investment projects. More broadly, management plays a pivotal role in shaping the firm's investment and financing decisions, in conjunction with its operational strategies. They also establish the objectives and direction for resource allocation within the firm (Jensen, 1986). Individual investors represent a crucial category of external stakeholders for enterprises; thus, monitoring the behavior of the management team is essential to align with individual investors' interests.

The information costs incurred by investors regarding corporate management and decision-making are a critical factor influencing individual investors' engagement in monitoring managerial behavior. Generally, these information costs encompass cognitive costs, acquisition costs, and integration costs. Elevated information costs can hinder investors' ability to effectively utilize pertinent information about enterprises (Blankespoor et al., 2019). For instance, individual investors often face challenges in communicating with enterprise management through on-site investigations or other means to obtain necessary information (Green et al., 2014; Solomon & Soltes, 2015). Furthermore, due to their lack of professional expertise, individual investors struggle to effectively integrate complex and interrelated information (Barber & Odean, 2008), which exacerbates the existing information asymmetry between investors and enterprises. This limitation impedes their understanding of corporate managers' business decisions and investment choices, thereby diminishing their capacity to exert significant influence over the level of corporate risk-taking (Blankespoor et al., 2019).

With advancements in technology, individual investors now have the opportunity to freely exchange information on various platforms, such as Weibo and "Stock Bar." These digital spaces facilitate real-time discussions and the sharing of insights, enhancing their engagement in the financial market. The emergence of social media has reduced information costs for individual investors to some extent, facilitating their access to insights regarding corporate dynamics and investment opportunities (Blankespoor et al., 2014). However, the social media regulation presents significant challenges; consequently, these platforms often contain false information and misleading statements, which introduces uncertainty regarding the quality of information received by investors and may ultimately adversely affect the informational environment surrounding enterprises (Antweiler & Frank, 2004; Jia et al., 2020).

² http://www.szse.cn/disclosure/notice/general/t20230804_602472.html.

³ http://www.sse.com.cn/lawandrules/sselawrules/stocks/mainipo/c/c_20230804_5724627.shtml.

Table 1
Definition of variables This table shows the detailed definitions of the core variables.

Variables	Symbols	Definition
Dependent variable	<i>Risk1</i>	Three-year (t to t+2 years) rolling standard deviation of the ratio of industry-adjusted EBIT to year-end total assets.
Independent Variables	<i>Interaction1</i>	The average of the total number of words in the question;
	<i>Interaction2</i>	The average of the total number of words in the answer;
	<i>Interaction3</i>	The average of the number of words in the question and the number of answers.
Control Variables	<i>Lnsiz</i>	Corporate size, represented by the natural logarithm of total assets for the year.
	<i>Lev</i>	Financial leverage, which is equal to as total liabilities divided by total assets.
	<i>Roe</i>	Return on equity, calculated as net profit divided by total assets.
	<i>Cfo</i>	Net cash flow from operations, net cash flow from operating activities divided by assets.
	<i>LargestHolder</i>	Shareholding proportion of the largest shareholder, which is equal to the number of shares held by the largest shareholder divided by the total share capital.
	<i>Indep</i>	Size of independent directors, defined as the proportion of independent directors relative to the total number of board members.
	<i>Age</i>	The natural logarithm of the company's age since establishment.
	<i>Dual</i>	Two positions in one, the dummy variable assumes a value of one when the roles of chairman and general manager are held by a single individual, and zero in all other cases.
	<i>Soe</i>	Corporate ownership, the dummy variable represents the Firm ownership, taking the value of one if they are classified as SOEs, and zero if it falls under any other ownership category.

Table 2
Descriptive statistics
This table shows the descriptive statistics of the core variables.

Variables	N	Mean	SD	Min	P25	Median	P75	Max
<i>Risk1</i>	27636	3.177	3.914	0.170	1.049	1.898	3.642	24.444
<i>Interaction1</i>	27636	3.511	1.177	0.000	3.639	3.860	4.048	4.590
<i>Interaction2</i>	27636	3.548	1.438	0.000	3.517	4.005	4.367	5.267
<i>Interaction3</i>	27636	4.219	1.425	0.000	4.350	4.647	4.885	5.566
<i>Lnsiz</i>	27636	22.133	1.290	19.910	21.187	21.936	22.864	26.155
<i>Lev</i>	27636	0.410	0.204	0.050	0.243	0.401	0.565	0.861
<i>Roe</i>	27636	0.071	0.095	-0.435	0.035	0.073	0.115	0.308
<i>Cfo</i>	27636	0.048	0.068	-0.153	0.010	0.048	0.089	0.238
<i>LargestHolder</i>	27636	35.094	14.925	8.930	23.370	33.080	45.110	74.890
<i>Indep</i>	27636	0.381	0.072	0.250	0.333	0.364	0.429	0.600
<i>Age</i>	27636	2.844	0.360	0.693	2.639	2.890	3.091	4.143
<i>Dual</i>	27636	0.278	0.448	0.000	0.000	0.000	1.000	1.000
<i>Soe</i>	27636	0.364	0.481	0.000	0.000	0.000	1.000	1.000

2.3. Investor-enterprise interactions and corporate risk-taking

The investor-enterprise interaction platform expands communication channels between individual investors and corporate management, facilitating direct two-way exchanges. Unlike interactions among investors on social media, stock exchanges mandate that corporate management addresses and replies to investor inquiries promptly, thereby ensuring effective communication between individual investors and corporate leadership (Chen et al., 2011; Lee & Zhong, 2022; Liu et al., 2014). Furthermore, departing from the previous passive approach where individual investors could only obtain information from company reports, they can now actively engage in the information disclosure process by posing questions to management on online platforms. This engagement enhances their ability to extract relevant information and enables them to better understand changes in enterprise operations while exerting substantial external oversight over managerial behavior (Drake et al., 2012; Duarte et al., 2008; Kong et al., 2021; Liu et al., 2023).

The investor-enterprise interaction platform offers novel avenues for individual investors to participate in corporate governance. Within a context characterized by a deficient external information environment, these interactions can exert significant external pressure on enterprise management, aiding in the mitigation of self-serving behaviors and encouraging a more comprehensive assessment of project risks and benefits. Individual investors may positively influence the decision-making processes within enterprises, thereby enhancing the overall quality of corporate governance (Chau et al., 2020; Huang et al., 2016, 2018; Kong, 2019). Conversely, investor-enterprise interaction platforms also promote transparency within enterprises and diminish the disparity of information between investors and companies. The open Q&A records shared between individual investors and corporate management enhance both the efficiency and breadth of information dissemination, improving informational diversity while enabling other investors and market participants to gain a comprehensive understanding of an enterprise's operational conditions and potential risks. This increased visibility further amplifies external scrutiny on the enterprise (Huang et al., 2016). In response to feedback from investors, management tends to adopt a more cautious approach in decision-making, ensuring that revenue generation is pursued alongside effective risk control measures. This dynamic encourages management to prioritize risk management practices while avoiding excessive risk-taking.

For enterprises, the interaction between individual investors and corporate management on investor-enterprise interaction

Table 3**Main results**

This table reports the regression results that investigate the impact of IEs on corporate risk-taking. The dependent variable, corporate risk-taking, is quantified by the three-year (t to t+2 years) rolling standard deviation of the ratio of industry-adjusted EBIT to year-end total assets. In column (1), we utilize the average total word count in questions to measure Interaction 1. In column (2), we employ the average total word count in answers for measuring Interaction 2. Column (3) incorporates the average combined word count from both questions and answers as a measure for Interaction 3. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1		
	(1)	(2)	(3)
<i>Interaction1</i>	-0.104*** (-3.829)		
<i>Interaction2</i>		-0.101*** (-4.537)	
<i>Interaction3</i>			-0.094*** (-4.198)
<i>Lnsiz</i>	0.436*** (3.586)	0.442*** (3.635)	0.437*** (3.593)
<i>Lev</i>	1.271*** (3.001)	1.265*** (2.988)	1.263*** (2.980)
<i>Roe</i>	-6.806*** (-14.069)	-6.805*** (-14.060)	-6.810*** (-14.077)
<i>Cfo</i>	2.084*** (4.428)	2.090*** (4.444)	2.083*** (4.426)
<i>LargestHolder</i>	-0.054*** (-8.396)	-0.054*** (-8.404)	-0.054*** (-8.389)
<i>Indep</i>	0.649 (1.555)	0.664 (1.591)	0.648 (1.554)
<i>Age</i>	-0.172 (-0.362)	-0.116 (-0.245)	-0.171 (-0.360)
<i>Dual</i>	0.040 (0.334)	0.040 (0.328)	0.041 (0.340)
<i>Soe</i>	-0.246 (-0.865)	-0.244 (-0.859)	-0.248 (-0.872)
<i>Constant</i>	-4.374 (-1.585)	-4.636* (-1.683)	-4.368 (-1.584)
Year_FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
N	27636	27636	27636
Adj_R ²	0.100	0.100	0.100

platforms not only enhances internal communication but also significantly improves decision-making efficiency. These platforms enable management to obtain direct market feedback and investor insights, thereby facilitating a better understanding of investors' requirements (Hales, 2009) and allowing for timely adjustments to business strategies and risk management practices. Furthermore, corporate interactions on online platforms constitute a vital aspect of reputation management. To uphold a positive corporate image, management is often prompted to respond to external feedback, which encourages the adoption of more conservative risk management strategies (Dyck et al., 2008; Fang & Peress, 2009).

In summary, the two-way communication facilitated by IEs on online information platforms can lower the expenses related to information gathering and integration for individual investors (Gao & Huang, 2020), enhance the quality of enterprise-related information accessible to them, mitigate the disparity of information between individual investors and management, and bolster individual investors' capacity to engage in corporate oversight. Consequently, this dynamic encourages corporate management to make more prudent venture investment decisions. Building on above analysis, the following research hypothesis is presented:

H1: Investor-enterprise interactions on online information platforms enhance the external supervision environment and improve the overall information environment, subsequently leading to a reduction in corporate risk-taking levels.

3. Data, methodology and descriptive statistics

3.1. Research data

The relevant interaction data is obtained from the Q&A records of IEs on the "Interaction-E" and "Shanghai E-Interaction" platforms. We employ data from A-share listed companies in China covering the period from 2010 to 2022. Given that the calculation of corporate risk-taking requires data from the subsequent two years, the final sample period for regression analysis is restricted to 2010–2020. The Q&A records are extracted from the CNRDS database, whereas additional relevant financial information is gathered from the CSMAR database. Subsequently, we implement a series of screening procedures that include: (1) eliminating financial

Table 4

Robustness test: Alternative measurement of independent variables

This table reports robustness checks utilizing alternative measurements for the independent variables. In columns (1) to (3), we use the total word count of questions asked in the year (Interaction 1_New), the total word count of answers provided in the year (Interaction 2_New), and the combined total of words asked and answered within that year (Interaction 3_New) as explanatory variables, respectively. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1		
	(1)	(2)	(3)
<i>Interaction1_New</i>	-0.051*** (-3.050)		
<i>Interaction2_New</i>		-0.048*** (-3.400)	
<i>Interaction3_New</i>			-0.055*** (-3.310)
<i>Lnsiz</i>	0.448*** (3.680)	0.451*** (3.709)	0.449*** (3.690)
<i>Lev</i>	1.271*** (3.000)	1.272*** (3.003)	1.262*** (2.977)
<i>Roe</i>	-6.783*** (-14.024)	-6.783*** (-14.017)	-6.784*** (-14.026)
<i>Cfo</i>	2.100*** (4.462)	2.102*** (4.470)	2.098*** (4.460)
<i>LargestHolder</i>	-0.054*** (-8.472)	-0.054*** (-8.475)	-0.054*** (-8.467)
<i>Indep</i>	0.659 (1.581)	0.671 (1.608)	0.659 (1.579)
<i>Age</i>	-0.134 (-0.282)	-0.095 (-0.201)	-0.137 (-0.289)
<i>Dual</i>	0.039 (0.324)	0.038 (0.318)	0.040 (0.329)
<i>Soe</i>	-0.241 (-0.845)	-0.237 (-0.836)	-0.242 (-0.850)
<i>Constant</i>	-4.752* (-1.724)	-4.934* (-1.790)	-4.753* (-1.724)
<i>Year_FE</i>	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes
<i>N</i>	27636	27636	27636
<i>Adj_R²</i>	0.099	0.099	0.099

institutions; (2) excluding specialized enterprises categorized as ST and PT; (3) removing datasets with missing values or an asset-liability ratio greater than 1; (4) mitigating outlier effects through winsorizing the continuous variables in 1st and 99th percentiles.

3.2. Baseline model and variable definitions

To investigate the influence of IEs on corporate risk-taking, we employ a two-way fixed effects model incorporating both firm and year dimensions to estimate the following equation.

$$Risk_{i,t} = \alpha_0 + \beta_1 Interaction_{i,t} + \sum \beta control_{i,t} + Firm + Year + \varepsilon_{i,t} \tag{1}$$

Where $Risk_{i,t}$ represents the risk-taking behavior of non-financial enterprises and i represents the enterprise and t represents the year. The calculation follows the methodologies established by John et al. (2008) and Boubakri et al. (2013). We utilize the firm's return on assets (ROA), prior to interest and tax, evaluating the corporate risk-taking, adjusting it by computing the standard deviation over the current year and the subsequent two years for our baseline regression model; extreme deviations are employed in robustness tests.

$$Adj_RoA_{i,t} = \frac{EBIT_{i,t}}{ASSET_{i,t}} - \frac{1}{X} \sum_{k=1}^X \frac{EBIT_{k,t}}{ASSET_{k,t}} \tag{2}$$

$$Risk1_{i,t} = \frac{1}{T-1} \sum_{t=1}^T \left(\sqrt{Adj_RoA_{i,t} - \frac{1}{T} \sum_{t=1}^T (Adj_RoA_{i,t})^2} \right) | T=3 \tag{3}$$

$$Risk2_{i,t} = Max(Adj_RoA_{i,t}) - Min(Adj_RoA_{i,t}) | T=3 \tag{4}$$

In following context, $Interaction_{i,t}$ represents the extent of IEs on the information platforms. To enhance the credibility of our research

Table 5

Robustness test: Alternative measurement of dependent variables This table reports robustness checks utilizing alternative measurements for the dependent variables. In columns (1) to (3), we employ the extreme deviation of profit fluctuations over three years (*Risk2*) as the dependent variable. In columns (4) to (6), we utilize the five-year industry-adjusted stock return volatility, measured from t-2 to t+2 (*RiskReturn*). In columns (7) to (9), we use the three-year rolling standard deviation of unadjusted ROA as the dependent variable. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk2			RiskReturn			Sd_Roa		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Interaction1</i>	-0.187*** (-3.683)			-0.006* (-1.932)			-0.123*** (-3.641)		
<i>Interaction2</i>		-0.185*** (-4.453)			-0.004* (-1.652)			-0.127*** (-4.102)	
<i>Interaction3</i>			-0.170*** (-4.061)			-0.005* (-1.868)			-0.114*** (-4.052)
<i>Lnsiz</i>	0.784*** (3.493)	0.795*** (3.540)	0.786*** (3.499)	-0.022*** (-2.788)	-0.022*** (-2.726)	-0.022*** (-2.772)	0.747*** (4.046)	0.753*** (4.084)	0.747*** (4.051)
<i>Lev</i>	2.441*** (3.117)	2.427*** (3.100)	2.425*** (3.095)	0.032 (1.089)	0.031 (1.075)	0.031 (1.084)	0.998 (1.583)	0.983 (1.565)	0.985 (1.564)
<i>Roe</i>	-12.699*** (-14.157)	-12.698*** (-14.149)	-12.706*** (-14.164)	0.260*** (9.720)	0.260*** (9.715)	0.260*** (9.715)	-8.127*** (-11.938)	-8.126*** (-11.932)	-8.132*** (-11.942)
<i>Cfo</i>	3.912*** (4.473)	3.921*** (4.488)	3.910*** (4.471)	0.077** (2.112)	0.076** (2.099)	0.077** (2.110)	2.383*** (3.519)	2.388*** (3.520)	2.381*** (3.516)
<i>LargestHolder</i>	-0.099*** (-8.359)	-0.099*** (-8.365)	-0.099*** (-8.352)	0.001** (2.266)	0.001** (2.248)	0.001** (2.266)	-0.063*** (-7.111)	-0.063*** (-7.061)	-0.063*** (-7.098)
<i>Indep</i>	1.154 (1.493)	1.180 (1.528)	1.152 (1.491)	0.020 (0.662)	0.021 (0.691)	0.020 (0.663)	0.758 (1.376)	0.775 (1.402)	0.757 (1.372)
<i>Age</i>	-0.324 (-0.365)	-0.229 (-0.258)	-0.324 (-0.366)	-0.020 (-0.312)	-0.015 (-0.239)	-0.018 (-0.292)	-0.303 (-0.493)	-0.246 (-0.400)	-0.306 (-0.498)
<i>Dual</i>	0.076 (0.338)	0.075 (0.333)	0.077 (0.344)	0.003 (0.320)	0.003 (0.309)	0.003 (0.317)	-0.007 (-0.037)	-0.007 (-0.039)	-0.005 (-0.031)
<i>Soe</i>	-0.419 (-0.783)	-0.415 (-0.779)	-0.422 (-0.791)	-0.042** (-2.095)	-0.042** (-2.080)	-0.042** (-2.092)	-0.481 (-1.409)	-0.480 (-1.410)	-0.484 (-1.419)
<i>Constant</i>	-7.495 (-1.464)	-7.944 (-1.554)	-7.476 (-1.461)	1.320*** (5.748)	1.296*** (5.665)	1.314*** (5.728)	-10.144** (-2.453)	-10.411** (-2.527)	-10.115** (-2.450)
<i>Year_FE</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	27636	27636	27636	20746	20746	20746	27636	27636	27636
<i>Adj_R²</i>	0.100	0.100	0.100	0.273	0.273	0.273	0.072	0.072	0.072

Table 6

Robustness test: Substitute the fixed effects

This table reports robustness checks by substituting fixed effects. We incorporated province-year and industry-year fixed effects into the regression equation. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1		
	(1)	(2)	(3)
<i>Interaction1</i>	-0.082*** (-3.009)		
<i>Interaction2</i>		-0.085*** (-3.806)	
<i>Interaction3</i>			-0.076*** (-3.372)
<i>Lnsiz</i>	0.316*** (2.639)	0.320*** (2.672)	0.316*** (2.642)
<i>Lev</i>	1.219*** (2.954)	1.209*** (2.932)	1.211*** (2.934)
<i>Roe</i>	-6.565*** (-13.693)	-6.564*** (-13.685)	-6.567*** (-13.698)
<i>Cfo</i>	2.131*** (4.593)	2.134*** (4.603)	2.132*** (4.595)
<i>LargestHolder</i>	-0.047*** (-7.470)	-0.047*** (-7.472)	-0.046*** (-7.464)
<i>Indep</i>	0.558 (1.344)	0.569 (1.371)	0.557 (1.343)
<i>Age</i>	-0.224 (-0.452)	-0.190 (-0.385)	-0.225 (-0.454)
<i>Dual</i>	0.098 (0.820)	0.098 (0.817)	0.099 (0.825)
<i>Soe</i>	-0.375 (-1.413)	-0.374 (-1.412)	-0.376 (-1.419)
<i>Constant</i>	-1.509 (-0.514)	-1.680 (-0.573)	-1.477 (-0.503)
Year_FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Ind*Year FE	Yes	Yes	Yes
Province*Year FE	Yes	Yes	Yes
N	27636	27636	27636
Adj_R2	0.408	0.408	0.408

conclusions, we measure IEIS by the natural logarithm of following three words' numerical statistics (Lee & Zhong, 2022): (1) the average word count of questions posed (*Interaction1*); (2) the average word count in responses provided (*Interaction2*); and (3) the average word count for both questions and answers in Q&A sessions (*Interaction3*). The detailed measurement is as follows:

$$\text{Interaction} = \ln(1 + \text{words}) \quad (5)$$

While, *words* refers to the text statistics derived from Q&A records on interactive platforms. To mitigate the influence of extraneous factors on corporate risk-taking, this paper incorporates several control variables into the regression analysis: firm size, leverage ratio, return on equity, net cash flow from operations, shareholding ratio of the largest shareholder, independent director count, years since establishment, dual positions held by individuals within the company, and ownership structure. Table 1 provides a comprehensive overview of the previously mentioned variables along with their respective definitions.

3.3. Statistical distribution of variables

Table 2 presents the descriptive statistical results for all variables. The data on corporate risk-taking reveals an average value of 3.177, aligning with existing literature. The maximum and minimum values are 24.444 and 0.170, indicating a significant variation in risk-taking among different firms. Regarding IEIS, both the minimum average counts of total words asked and answered are zero, suggesting that certain companies do not engage in information exchange with investors on online interactive platforms. The average num of questions and answers bounding with IEIs are 3.511 and 3.548, respectively, this suggests that Chinese individual investors actively seek to inquire about relevant information regarding listed firms through these platforms, while listed companies generally provide comprehensive responses to investors' inquiries.

Table 7

Endogeneity test

This table reports the regression results and related tests based on the instrumental variables constructed following Lewbel (2012). The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1		
	(1)	(2)	(3)
$\widehat{Interaction1}$	-0.069*		
	(-1.782)		
$\widehat{Interaction2}$		-0.119***	
		(-2.833)	
$\widehat{Interaction3}$			-0.062*
			(-1.827)
<i>lnsize</i>	0.595***	0.156***	0.154***
	(10.933)	(6.918)	(6.818)
<i>Lev</i>	1.086***	0.171	0.206
	(4.684)	(1.223)	(1.472)
<i>Roe</i>	-6.630***	-10.203***	-10.224***
	(-25.482)	(-40.070)	(-40.159)
<i>Cfo</i>	1.786***	2.848***	2.885***
	(4.810)	(8.043)	(8.152)
<i>LargestHolder</i>	-0.059***	-0.017***	-0.017***
	(-15.885)	(-10.478)	(-10.497)
<i>Indep</i>	0.153	0.264	0.264
	(0.441)	(0.836)	(0.837)
<i>Age</i>	0.789***	0.059	0.076
	(4.468)	(0.808)	(1.046)
<i>Dual</i>	0.027	0.059	0.055
	(0.363)	(1.114)	(1.037)
<i>Soe</i>	-0.229	-0.871***	-0.848***
	(-1.330)	(-15.301)	(-15.157)
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
N	27636	27636	27636
Adj_R ²	0.072	0.072	0.072
Cragg-Donald Wald F statistic	980.55	679.08	1444.27

4. Empirical results

4.1. Baseline results

Building on the aforementioned model, we examine the impact of IELs on corporate risk-taking by conducting a multivariable regression analysis that controls for other influencing factors and adjusts standard errors through firm-level clustering. The results are presented in Table 3. In columns 1-3, three explanatory variables related to IELs are utilized: (1) the average total word count in questions; (2) the average total word count in answers; and (3) the average combined word count of both questions and answers. As indicated in Table 3, the regression coefficients for IELs with corporate risk-taking are -0.104 , -0.101 , and -0.094 , all statistically significant at the 1% level. This suggests that higher levels of information exchange between managers and investors correlate with lower levels of corporate risk-taking. Regarding economic significance, for instance, considering the number of words used in the questions, a one-standard-deviation increase in IELs among listed firms is associated with a 12.2% reduction in risk-taking, equivalent to approximately 3.13% of the sample standard deviation. Both statistical and economic evidence robustly support the negative relationship between IELs and corporate risk-taking behavior. In China, extensive information exchanges between investors and management via online platforms can effectively mitigate corporate risk-taking.

4.2. Robustness tests

In the primary regression analysis, the average word count of interactive exchanges within a year was employed to assess the degree of IELs. To validate the robustness of these findings, subsequent regressions utilized total word counts from questions, answers, and their combined totals as explanatory variables. The results are detailed in Table 4. Following the substitution of original explanatory variable labels with new ones, all regression coefficients for IELs concerning corporate risk-taking remain statistically significant at the 1% level, corroborating the main regression outcomes. This alternative measurement approach for explanatory variables does not alter the principal findings of this study and further enhances the credibility of our research conclusions.

In the previous regression analysis, the standard deviation of a company's industry-adjusted EBIT relative to its total assets over the past three years was employed as a measure of corporate risk-taking levels. To further mitigate potential biases arising from indicator selection in this study's results, we utilize the extreme deviation of three-year profit fluctuations (as shown in Equation (4)) and the

Table 8

Endogeneity test: PSM-DID Regression

This table reports the results of the endogeneity test for the PSM-DID regression. First, we employ the PSM method to match treatment and control group firms on an annual basis using all relevant control variables, followed by a Difference-in-Differences (DID) analysis based on the temporal variation in launch times. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1
<i>Treat*Post</i>	-0.746*** (-7.858)
<i>Lnsize</i>	-0.385*** (-8.714)
<i>Lev</i>	-0.080 (-0.319)
<i>Roe</i>	-2.122** (-2.512)
<i>Cfo</i>	2.655*** (4.113)
<i>LargestHolder</i>	-0.011*** (-3.866)
<i>Indep</i>	0.870 (1.331)
<i>Age</i>	-0.399*** (-3.595)
<i>Dual</i>	0.047 (0.418)
<i>Soe</i>	-0.128 (-1.329)
<i>Constant</i>	12.661*** (12.584)
Year_FE	Yes
Firm FE	Yes
N	6024
Adj_R2	0.043

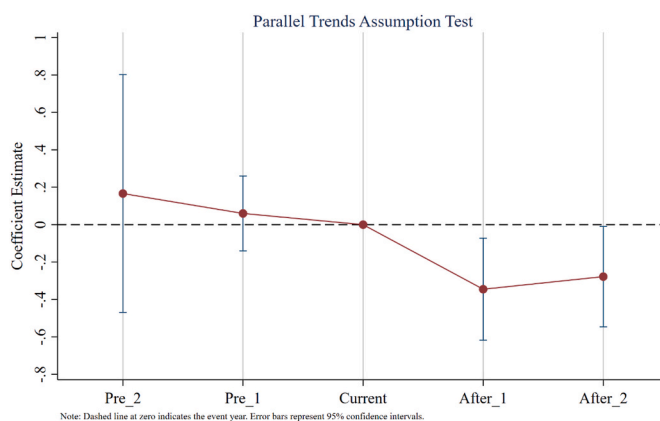


Fig. 1. Parallel Trend Assumption Test

Notes: This figure shows the differential trends in risk-taking levels among listed companies on the Shenzhen Stock Exchange and the Shanghai Stock Exchange before and after the launch of "Interactive E" by the Shenzhen Stock Exchange.

five-year (t-2 to t+2) industry-adjusted stock return volatility as alternative variables to assess the level of corporate risk-taking levels. In addition, we replace the dependent variable with the three-year rolling standard deviation of unadjusted ROA. The regression outcomes are presented in Table 5, where the coefficient for investor interactions with firm risk-taking remains significantly negative at the 1% level after substituting the explanatory variable measurement. This result further reinforces the main research conclusions presented in the baseline regression.

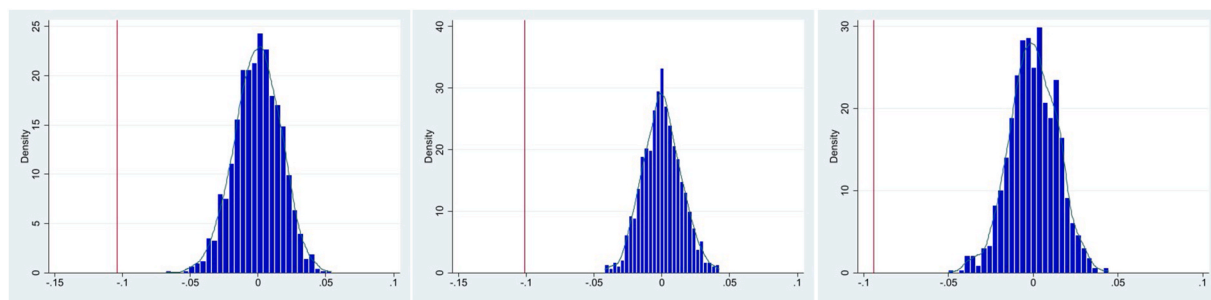


Fig. 2. Distribution of Placebo Test Statistic

Notes: This figure shows the distribution of regression coefficients for randomly assigned samples compared to actual regression coefficients.

Table 9

Placebo test result

This table reports the difference between the regression coefficients derived from randomly assigned samples and the actual regression coefficients.

	Average of coefficient distribution	Regression coefficient of baseline results	P-Value
(1) <i>Risk1-Interaction1</i>	-0.0000	-0.104	0.000
(2) <i>Risk1-Interaction2</i>	-0.0006	-0.101	0.000
(3) <i>Risk1-Interaction3</i>	0.0005	-0.094	0.000

Table 10

Interaction Effectiveness and Corporate Risk-Taking

This table reports the results of the efficacy analysis regarding the impact of interaction effectiveness on corporate risk-taking. Considering that some companies may not respond or may selectively respond to investor inquiries, we calculate the number of responses received (*Answer_Ratio*) and the time interval (*Answer_Gap*) as alternative explanatory variables in our regression analysis. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1	
	(1)	(2)
<i>Answer_Ratio</i>	-0.005*** (-2.651)	
<i>Answer_Gap</i>		0.002*** (5.641)
<i>Lnsiz</i>	0.006*** (4.286)	-0.001*** (-2.885)
<i>Lev</i>	0.015*** (3.147)	0.006** (2.067)
<i>Roe</i>	-0.071*** (-13.594)	-0.101*** (-18.117)
<i>Cfo</i>	0.022*** (4.216)	0.028*** (5.084)
<i>LargestHolder</i>	-0.001*** (-8.341)	-0.000*** (-5.348)
<i>Indep</i>	0.006 (1.474)	-0.001 (-0.169)
<i>Age</i>	-0.001 (-0.131)	0.002* (1.699)
<i>Dual</i>	0.000 (0.153)	0.000 (0.297)
<i>Soe</i>	-0.003 (-0.997)	-0.010*** (-11.484)
<i>Constant</i>	-0.074** (-2.406)	0.067*** (7.427)
Year_FE	Yes	Yes
Firm FE	Yes	Yes
N	24987	24273
Adj_R2	0.109	0.143

Table 11**Risk-Related Investor Interactions and Corporate Risk-Taking**

This table reports the results of the analysis using refined measures of investor–enterprise interactions based on textual content. Focusing on risk-related information, we reconstruct interaction variables by identifying keywords such as “risk”, “uncertainty”, “downside”, “volatility”, “pressure”, “decline”, and “contraction”. Following Li et al. (2020), we measure risk-related interactions as the proportion of keyword-related words to total word counts and construct three variables: *Interaction1_New*, *Interaction2_New*, and *Interaction3_New*. The values in parentheses represent robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk1		
	(1)	(2)	(3)
<i>Interaction1_New</i>	−0.026** (−2.315)		
<i>Interaction2_New</i>		−0.020* (−1.727)	
<i>Interaction3_New</i>			−0.021** (−2.145)
<i>lnsize</i>	0.613*** (5.327)	0.610*** (5.307)	0.612*** (5.323)
<i>Lev</i>	0.924** (2.256)	0.938** (2.290)	0.928** (2.266)
<i>Roe</i>	−6.676*** (−13.866)	−6.674*** (−13.862)	−6.677*** (−13.866)
<i>Cfo</i>	1.742*** (3.715)	1.748*** (3.728)	1.744*** (3.719)
<i>LargestHolder</i>	−0.058*** (−9.080)	−0.058*** (−9.091)	−0.058*** (−9.085)
<i>Indep</i>	0.199 (0.476)	0.188 (0.449)	0.195 (0.466)
<i>Age</i>	1.011*** (3.853)	0.993*** (3.790)	1.007*** (3.838)
<i>Dual</i>	0.036 (0.295)	0.035 (0.286)	0.036 (0.294)
<i>Soe</i>	−0.273 (−0.952)	−0.270 (−0.943)	−0.273 (−0.951)
<i>Constant</i>	−11.128*** (−5.625)	−11.045*** (−5.591)	−11.113*** (−5.616)
<i>Year_FE</i>	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes
<i>N</i>	27636	27636	27636
<i>Adj_R²</i>	0.086	0.086	0.086

The level of investor–enterprise interaction may vary across different industries, and corporate risk-taking levels can also fluctuate depending on the industry context. Furthermore, regional macroeconomic factors may simultaneously influence both the willingness for IEs and corporate risk-taking levels. To mitigate potential biases arising from industrial and regional differences, we incorporated province-year and industry-year fixed effects into the regression equation, capturing all time-varying factors at both the provincial and industry levels that account for changes in regional characteristics and industry trends, as illustrated in Table 6. The regression coefficients for Interaction 1, Interaction 2, and Interaction 3 are −0.080, −0.083, and −0.074 respectively; all are statistically significant at the 1% level. This suggests that the findings of this study are robust against variations due to industry and regional differences.

4.3. Endogeneity test

The preceding analysis has established that IEs on internet platforms can reduce corporate risk-taking levels; however, management may also engage in strategic risk adjustment behaviors to align with investor preferences. To mitigate potential endogeneity between these two variables, following Lewbel (2012) and Xu et al. (2024), this paper exploits heteroskedasticity in the model's internal variables to construct instruments and address potential endogeneity concerns.⁴ Specifically, we first regress the endogenous explanatory variable, Interaction, on all exogenous variables to obtain the residuals. We then interact these residuals with mean-centered exogenous variables to generate instruments that satisfy both relevance and exogeneity conditions. In the first stage, these constructed instruments, namely the interactions between the residuals and the mean-centered exogenous variables, are used as instruments for Interaction and its interaction terms. In the second stage, after incorporating the predicted values from the first stage, the estimated coefficients on the key explanatory variable remain consistent with the baseline results in both sign and statistical significance. These findings indicate that the negative effect of investor–enterprise interactions on corporate risk-taking remains robust after accounting for potential endogeneity (See Table 7).

⁴ We conduct heteroskedasticity tests and confirm that the key condition underlying the Lewbel (2012) approach is satisfied.

Table 12

Heterogeneity analysis: Firm ownership

This table reports a heterogeneity analysis categorized by firm ownership. Columns (1) to (3) display the results for state-owned enterprises (SOEs), while Columns (4) to (6) pertain to non-state-owned enterprises (non-SOEs). The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Soes		Non-Soes			
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Interaction1</i>	0.006 (0.168)			-0.132*** (-2.983)		
<i>Interaction2</i>		-0.008 (-0.305)			-0.132*** (-3.601)	
<i>Interaction3</i>			0.000 (0.010)			-0.124*** (-3.428)
<i>Lnsiz</i>	-0.213 (-1.431)	-0.214 (-1.440)	-0.214 (-1.436)	0.644*** (3.622)	0.650*** (3.651)	0.646*** (3.630)
<i>Lev</i>	0.454 (0.851)	0.445 (0.835)	0.451 (0.846)	0.838 (1.481)	0.835 (1.476)	0.825 (1.457)
<i>Roe</i>	-4.094*** (-6.240)	-4.094*** (-6.246)	-4.095*** (-6.243)	-7.450*** (-11.655)	-7.468*** (-11.681)	-7.460*** (-11.672)
<i>Cfo</i>	1.409** (2.400)	1.411** (2.405)	1.410** (2.401)	1.858*** (2.854)	1.860*** (2.860)	1.855*** (2.849)
<i>LargestHolder</i>	-0.025*** (-3.985)	-0.025*** (-3.978)	-0.025*** (-3.983)	-0.055*** (-5.493)	-0.055*** (-5.488)	-0.055*** (-5.490)
<i>Indep</i>	1.004** (2.161)	1.003** (2.155)	1.003** (2.157)	0.154 (0.264)	0.158 (0.271)	0.152 (0.260)
<i>Age</i>	-0.569 (-1.191)	-0.562 (-1.177)	-0.567 (-1.187)	-1.186* (-1.717)	-1.114 (-1.616)	-1.198* (-1.735)
<i>Dual</i>	0.156 (1.203)	0.158 (1.216)	0.156 (1.206)	0.013 (0.087)	0.011 (0.069)	0.014 (0.090)
<i>Constant</i>	9.116** (2.558)	9.144** (2.568)	9.134** (2.564)	-5.745 (-1.460)	-6.018 (-1.530)	-5.697 (-1.448)
Year_FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
N	10050	10050	10050	17586	17586	17586
Adj_R ²	0.035	0.035	0.035	0.131	0.131	0.131

Since the “Interaction-E” platform of the Shenzhen Stock Exchange and the “Shanghai E-Interaction” platform of the Shanghai Stock Exchange were launched in 2010 and 2013, respectively, this paper exploits the difference in their introduction timing as a quasi-natural experiment and implements a Difference-in-Differences (DID) design to further examine the baseline findings. To enhance the comparability between firms listed on the two exchanges, we first employ Propensity Score Matching (PSM) on an annual basis using all baseline control variables as matching covariates, and then conduct the DID analysis on the matched sample. Specifically, firms listed on the Shenzhen Stock Exchange, which introduced the “Interaction-E” platform earlier, are treated as the treatment group, while firms listed on the Shanghai Stock Exchange serve as the control group. The policy shock is defined based on the implementation of the interaction platform, with an indicator variable *Post* equal to 1 for years after 2010 and 0 otherwise. To address concerns related to the temporal structure of the dependent variable, we further refine the sample selection. Given that corporate risk-taking is measured using a rolling-window approach, the inclusion of certain years may introduce forward-looking contamination. To avoid this issue, we exclude observations from 2008 to 2009, such that the pre-policy period consists only of 2006 and 2007. Under this setting, the risk measures in the pre-policy period are constructed entirely from pre-policy information, thereby improving the validity of the DID identification. The model is as follows:

$$Risk_{i,t} = \alpha_0 + \beta_1 Treat_{i,t} * Post_{i,t} + \sum \beta control_{i,t} + Firm + Year + \varepsilon_{i,t} \quad (6)$$

The regression results are presented in Table 8, the coefficient on *Treat* × *Post* is negative and statistically significant at the 1% level, indicating that firms listed on the Shenzhen Stock Exchange, which introduced the “Interaction-E” platform earlier, exhibit lower levels of risk-taking.

Fig. 1 presents the results of the parallel trends test. The coefficients on the pre-treatment indicators (*Pre_2* to *Pre_1*) are all close to zero and statistically insignificant, suggesting no systematic differences between the treatment and control groups prior to the policy implementation. In contrast, the coefficients for the post-treatment periods (*After_1* and *After_2*) are negative, indicating a decline in risk-taking following the policy shock (with 2010 as the base year). Overall, these findings support the validity of the parallel trends assumption.

To further mitigate potential endogeneity bias arising from unobserved sample characteristics, we randomly assigned different samples based on the actual levels of investor-enterprise interaction and generated virtual investor-enterprise interaction levels to substitute for the explanatory variables in our regression analysis. By bootstrapping this process 1000 times, we obtained the distribution of coefficients for the placebo test. If the findings of this study are influenced by unobserved features within the sample, then these results should remain consistent following random assignment of investor-enterprise interaction levels. The results presented in

Table 13

Heterogeneity analysis: Industry Differences

This table reports a heterogeneity analysis categorized by the firm's industry, specifically whether it belongs to the high-tech sector or not. Columns (1) to (3) display the results for high-tech enterprises, while Columns (4) to (6) pertain to non-high-tech enterprises. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	High-Tech Industry			Non-High-Tech Industry		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Interaction1</i>	-0.107** (-2.536)			-0.070** (-2.070)		
<i>Interaction2</i>		-0.095*** (-3.424)			-0.076** (-2.199)	
<i>Interaction3</i>			-0.093*** (-2.673)			-0.066** (-2.405)
<i>Lnsiz</i>	0.886*** (4.574)	0.892*** (4.605)	0.887*** (4.580)	0.047 (0.295)	0.050 (0.312)	0.047 (0.294)
<i>Lev</i>	1.398** (2.446)	1.425** (2.498)	1.391** (2.433)	0.889 (1.509)	0.862 (1.464)	0.884 (1.499)
<i>Roe</i>	-9.258*** (-13.992)	-9.260*** (-13.983)	-9.262*** (-13.995)	-3.566*** (-5.286)	-3.564*** (-5.285)	-3.570*** (-5.292)
<i>Cfo</i>	2.249*** (2.936)	2.248*** (2.934)	2.243*** (2.928)	2.072*** (3.648)	2.075*** (3.661)	2.073*** (3.650)
<i>LargestHolder</i>	-0.069*** (-6.434)	-0.069*** (-6.458)	-0.069*** (-6.429)	-0.036*** (-4.735)	-0.036*** (-4.712)	-0.036*** (-4.728)
<i>Indep</i>	0.342 (0.541)	0.357 (0.565)	0.344 (0.543)	1.117** (2.164)	1.126** (2.179)	1.115** (2.160)
<i>Age</i>	-1.049 (-1.490)	-0.957 (-1.365)	-1.040 (-1.477)	0.512 (0.839)	0.514 (0.846)	0.508 (0.835)
<i>Dual</i>	0.024 (0.145)	0.022 (0.131)	0.025 (0.148)	0.102 (0.638)	0.102 (0.638)	0.103 (0.640)
<i>Soe</i>	-0.776** (-1.993)	-0.768** (-1.977)	-0.777** (-1.996)	0.172 (0.443)	0.169 (0.438)	0.170 (0.438)
<i>Constant</i>	-10.326** (-2.430)	-10.741** (-2.535)	-10.354** (-2.438)	0.663 (0.175)	0.641 (0.169)	0.695 (0.184)
<i>Year_FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	14329	14329	14329	13307	13307	13307
<i>Adj_R²</i>	0.150	0.150	0.150	0.050	0.051	0.050

Fig. 2 and Table 9 indicate that the true regression coefficients are extremely unlikely events at the 1% significance level within this coefficient distribution. Specifically, Fig. 2 (1)-(3) displays coefficient distribution plots (with the horizontal axis representing values of regression coefficients), while Table 9 rows (1)-(3) correspond to model specifications outlined in Table 3 columns (1)-(3), demonstrating that our findings exhibit strong robustness.

4.4. Efficacy analysis

In the preceding analysis, the measurement of IELs primarily relied on the average number of words exchanged during interactions between investors and enterprises. However, during these interactions, some listed companies may either fail to respond or selectively address investors' inquiries. To account for the effectiveness issues arising from this situation, this paper subsequently calculates the ratio of answers (*Answer_Ratio*) by dividing the number of answers provided by enterprise managers by the total number of questions posed. Additionally, we compute the interval (*Answer_Gap*) between investor questions and management responses. These two variables are then regressed separately as alternative explanatory factors. Both *Answer_Ratio* and *Answer_Gap* reflect managers' engagement attitudes and timeliness in online information interactions. The regression results presented in Table 10 indicate a significantly negative relationship of *Answer_Ratio* and corporate risk-taking in Column 1. Conversely, findings in Column 2 indicates that longer intervals before managers' responses to investor inquiries on online platforms correlate with higher levels of risk-taking. These findings suggest that higher quality information interactions between investors and companies are associated with lower corporate risk-taking levels.

We further refine the interaction measure using textual analysis by focusing on risk-related content. Specifically, we identify interactions containing keywords such as "risk", "uncertainty", "downside", "volatility", "pressure", "fluctuation", "decline", "contraction", "deterioration" and "downward pressure", and reconstruct the interaction variables accordingly. Following Li et al. (2019), we measure risk-related interactions as the proportion of keyword-related words to total word counts. We construct three measures: (1) keyword words in questions divided by total question words (*Interaction1_New*); (2) keyword words in responses divided by total response words (*Interaction2_New*); and (3) keyword words in both questions and responses divided by total words (*Interaction3_New*).

The results show that, after focusing on risk-related interactions, the coefficients remain negative and statistically significant at

Table 14
Mechanism Analysis: External Monitoring

This table reports the results of mechanism tests for external monitoring. Consistent with the extant literature, we employ the median level of institutional ownership as a threshold to partition the sample into high and low external monitoring groups for subsequent regression analyses. Columns (1) to (3) display the results for firms with high institutional ownership, while Columns (4) to (6) present the results for firms with low institutional ownership. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	High external monitoring			Low external monitoring		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Interaction1</i>	0.001 (0.017)			-0.137*** (-3.035)		
<i>Interaction2</i>		-0.031 (-1.203)			-0.134*** (-3.674)	
<i>Interaction3</i>			-0.012 (-0.475)			-0.117*** (-3.157)
<i>Lnsiz</i>	0.144 (1.006)	0.139 (0.973)	0.141 (0.988)	0.892*** (4.157)	0.901*** (4.203)	0.895*** (4.167)
<i>Lev</i>	1.687*** (3.122)	1.657*** (3.071)	1.673*** (3.096)	0.683 (1.027)	0.672 (1.010)	0.680 (1.021)
<i>Roe</i>	-4.278*** (-6.351)	-4.282*** (-6.362)	-4.281*** (-6.355)	-7.799*** (-11.674)	-7.802*** (-11.665)	-7.806*** (-11.682)
<i>Cfo</i>	2.028*** (3.615)	2.022*** (3.607)	2.025*** (3.610)	1.847*** (2.662)	1.848*** (2.668)	1.846*** (2.661)
<i>LargestHolder</i>	-0.033*** (-5.049)	-0.033*** (-5.029)	-0.033*** (-5.039)	-0.087*** (-5.616)	-0.087*** (-5.634)	-0.087*** (-5.618)
<i>Indep</i>	0.603 (1.363)	0.595 (1.346)	0.597 (1.349)	1.003 (1.520)	1.017 (1.543)	1.003 (1.521)
<i>Age</i>	-0.169 (-0.318)	-0.187 (-0.352)	-0.183 (-0.345)	-0.539 (-0.646)	-0.466 (-0.561)	-0.525 (-0.629)
<i>Dual</i>	0.085 (0.551)	0.089 (0.573)	0.087 (0.561)	-0.099 (-0.604)	-0.099 (-0.608)	-0.098 (-0.603)
<i>Soe</i>	0.139 (0.361)	0.134 (0.350)	0.137 (0.357)	-0.407 (-1.018)	-0.397 (-0.999)	-0.406 (-1.017)
<i>Constant</i>	0.407 (0.116)	0.613 (0.175)	0.529 (0.151)	-12.041** (-2.540)	-12.407*** (-2.638)	-12.106** (-2.559)
<i>Year_FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	13808	13808	13808	13799	13799	13799
<i>Adj_R²</i>	0.049	0.049	0.049	0.139	0.139	0.139

least at the 10 percent level. This is consistent with the baseline findings and further supports the role of investor–enterprise interactions in reducing corporate risk-taking (See Table 11).

4.5. Heterogeneity analysis

State-owned enterprises (SOEs) serve as a crucial pillar of China's economy and are often assigned multiple responsibilities, including maintaining social stability, ensuring employment, and providing public services. Consequently, SOEs tend to prioritize risk avoidance while pursuing economic benefits, favoring long-term stable development over short-term high-risk, high-return investments. As a result, state-owned enterprises typically exhibit a lower willingness to engage in risk-taking. In contrast, non-SOEs generally prioritize profit maximization as their primary objective and often achieve rapid growth and substantial returns through high-risk investments or innovation. Furthermore, compared to their state-owned counterparts, managers of non-SOEs possess greater autonomy in making high-risk investment decisions and demonstrate a stronger propensity for risk-taking. In this section, the sample is categorized based on firm ownership—specifically whether an enterprise is classified as an SOE or not. As illustrated in Table 12, the regression coefficients for IEs within the SOE group are not statistically significant; however, the regression coefficients for IEs among non-SOEs are -0.132 , -0.132 , and -0.124 , all statistically significant at the 1% level. This indicates that the inhibitory effect of IEs on corporate risk-taking primarily affects non-SOEs.

The willingness to undertake risks varies significantly across different industries. Compared to other sectors, high-tech enterprises depend on rapid research and development (R&D) for business growth, and technological innovation is often accompanied by substantial uncertainty; thus, high-tech firms typically exhibit a higher level of risk-taking. Moreover, intense market competition and the unpredictability of the external environment further encourage managers in high-tech enterprises to adopt more aggressive operational decisions, thereby enhancing their overall propensity for risk-taking. In the subsequent analysis, high-tech industries are categorized according to the “High-tech Industry Classification 2018 (Manufacturing)” and “High-tech Industry Classification 2018

Table 15**Mechanism Analysis: Information Environment**

This table reports the results of mechanism tests for the information environment. We utilize the KV index to examine this channel. Columns (1) to (3) display the results for groups in high information environments, while Columns (4) to (6) present the results for groups in low information environments. The values in parentheses represent the robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Optimal Information Environment			Worse Information Environment		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Interaction1</i>	-0.040 (-0.949)			-0.140*** (-3.147)		
<i>Interaction2</i>		-0.054 (-1.551)			-0.147*** (-4.042)	
<i>Interaction3</i>			-0.037 (-1.062)			-0.136*** (-3.653)
<i>Lnsiz</i>	0.311* (1.675)	0.313* (1.688)	0.312* (1.679)	0.481*** (2.844)	0.484*** (2.874)	0.481*** (2.846)
<i>Lev</i>	0.389 (0.588)	0.375 (0.567)	0.387 (0.584)	1.088* (1.813)	1.061* (1.777)	1.069* (1.783)
<i>Roe</i>	-6.922*** (-11.455)	-6.920*** (-11.444)	-6.923*** (-11.455)	-3.652*** (-4.362)	-3.656*** (-4.370)	-3.660*** (-4.374)
<i>Cfo</i>	1.594** (2.242)	1.588** (2.236)	1.594** (2.242)	1.339** (2.114)	1.365** (2.160)	1.341** (2.118)
<i>LargestHolder</i>	-0.034*** (-4.465)	-0.034*** (-4.471)	-0.034*** (-4.465)	-0.063*** (-6.723)	-0.063*** (-6.714)	-0.063*** (-6.701)
<i>Indep</i>	0.370 (0.612)	0.376 (0.623)	0.369 (0.611)	0.960 (1.638)	0.992* (1.693)	0.965* (1.646)
<i>Age</i>	-0.786 (-1.304)	-0.778 (-1.288)	-0.780 (-1.292)	-0.166 (-0.204)	-0.135 (-0.168)	-0.207 (-0.255)
<i>Dual</i>	0.087 (0.446)	0.088 (0.451)	0.087 (0.448)	0.198 (1.182)	0.197 (1.173)	0.199 (1.185)
<i>Soe</i>	-0.371 (-0.990)	-0.375 (-1.002)	-0.372 (-0.993)	-0.337 (-0.973)	-0.347 (-1.010)	-0.343 (-0.990)
<i>Constant</i>	-0.516 (-0.118)	-0.558 (-0.128)	-0.536 (-0.123)	-4.934 (-1.258)	-5.054 (-1.299)	-4.775 (-1.220)
<i>Year_FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	12548	12548	12548	12552	12552	12552
<i>Adj_R²</i>	0.080	0.080	0.080	0.069	0.070	0.069

(Services)⁵,⁵ with companies in the total sample grouped accordingly. The results are shown in Table 13, and the regression coefficients in columns 1-3 are larger than those in columns 4-6,⁶ indicating that negative impact of IELs to corporate risk-taking is more obvious in high-tech enterprises.

5. Mechanism tests

5.1. External monitoring

Previous studies have demonstrated that internet-based information trading platforms, such as “Stock Bar”, can exert significant external supervision over companies. These online platforms primarily influence the external governance of listed firms through public opinion pressure, effectively reducing earnings manipulation behaviors, increasing the likelihood of voluntary earnings forecasts, improving forecast accuracy, and enhancing the financial performance of these companies. The interactive platform established by the exchange provides a communication channel for individual investors and listed firms, facilitating closer and more efficient information exchange between small investors and companies. Consequently, the interactive processes within such official platforms can establish external oversight on management behavior.

In this section, we use institutional ownership as a proxy for the strength of external monitoring. Firms are classified into high and low external monitoring groups based on the annual median level of institutional ownership, and regression analyses are conducted separately for each group. The results, reported in Table 14, show that the negative impact of IELs is more pronounced and statistically significant in the low external monitoring group. This finding indicates that IELs contribute to strengthening the external monitoring faced by firms, guiding them toward more efficient resource allocation and preventing excessive expansion or investment in low-efficiency projects. Ultimately, this reduces firms' overall risk exposure.

⁵ https://www.stats.gov.cn/xw/tjxw/tzgg/202302/t20230202_1893950.html.

⁶ The inter-group coefficient difference test has been conducted.

Table 16**Mechanism Analysis: Risk Attitude**

This table reports the results of mechanism tests based on managerial risk preferences. Following Li (2020), we construct a proxy for managerial risk preference and classify firms into high and low risk-preference groups on an annual basis. Columns (1) to (3) present the results for firms with higher managerial risk preference, while Columns (4) to (6) report the results for firms with lower managerial risk preference. The values in parentheses represent robust t-statistics adjusted for firm-level clustering. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Risk Preference			Risk Aversion		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Interaction1</i>	-0.087** (-2.337)			0.018 (0.465)		
<i>Interaction2</i>		-0.075** (-2.397)			-0.042 (-1.221)	
<i>Interaction3</i>			-0.077** (-2.573)			-0.002 (-0.070)
<i>Lnsiz</i>	0.204 (1.086)	0.209 (1.110)	0.205 (1.089)	-0.238 (-1.288)	-0.242 (-1.310)	-0.240 (-1.299)
<i>Lev</i>	1.720** (2.512)	1.748** (2.552)	1.717** (2.507)	1.831*** (2.598)	1.785** (2.540)	1.817*** (2.581)
<i>Roe</i>	-3.888*** (-3.103)	-3.869*** (-3.087)	-3.883*** (-3.099)	-5.368*** (-6.831)	-5.371*** (-6.847)	-5.369*** (-6.835)
<i>Cfo</i>	1.328* (1.650)	1.328* (1.650)	1.324 (1.645)	1.480* (1.961)	1.470* (1.949)	1.473* (1.951)
<i>LargestHolder</i>	-0.031*** (-3.329)	-0.032*** (-3.335)	-0.031*** (-3.319)	-0.044*** (-4.930)	-0.044*** (-4.903)	-0.044*** (-4.924)
<i>Indep</i>	1.114 (1.552)	1.124 (1.565)	1.112 (1.548)	-0.044 (-0.070)	-0.054 (-0.087)	-0.051 (-0.081)
<i>Age</i>	-0.027 (-0.043)	0.036 (0.057)	-0.023 (-0.036)	-2.231*** (-2.673)	-2.230*** (-2.753)	-2.272*** (-2.708)
<i>Dual</i>	-0.001 (-0.008)	-0.006 (-0.035)	-0.002 (-0.010)	-0.087 (-0.478)	-0.083 (-0.453)	-0.086 (-0.473)
<i>Soe</i>	-0.199 (-0.449)	-0.205 (-0.463)	-0.207 (-0.466)	0.136 (0.245)	0.123 (0.222)	0.131 (0.235)
<i>Constant</i>	-1.172 (-0.277)	-1.449 (-0.343)	-1.175 (-0.278)	14.595*** (3.303)	15.030*** (3.399)	14.777*** (3.341)
<i>Year_FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	13764	13764	13764	13872	13872	13872
<i>Adj_R²</i>	0.080	0.080	0.080	0.080	0.081	0.080

5.2. Information environment

On one hand, most individual investors in the Chinese market lack the necessary expertise to interpret annual reports and other disclosures made by listed firms, and they are also unable to conduct on-site research or engage in face-to-face communication with company management. The emergence of investor-enterprise interaction (IEI) platforms has dismantled communication barriers between investors and listed firms, enabling investors to directly pose questions to management and obtain the information they require more conveniently and effectively. On the other hand, both “Shanghai E-Interaction” and “Interaction-E” are official online platforms provided by regulatory authorities. These exchanges monitor Q&A sessions with management teams, which helps ensure the reliability of the information provided through these platforms.

Consequently, this paper employs the KV measurement method (Kim & Verrecchia, 2001) to assess how interactive platforms enhance the information environment. The KV index measures the actual effectiveness of information disclosure by listed companies from a market perspective, serving as a true reflection of market behavior regarding the degree of information asymmetry faced by these companies. This measurement method not only comprehensively assesses the quality of information disclosure (including both mandatory and voluntary disclosures) but also reflects the efficiency of how the disclosed information spreads within the market. We categorized firms into different groups based on their annual KV indices and conducted regression analyses across varying information environments, as illustrated in Table 15. Interaction was found to be significant only within groups characterized by poor information environments, indicating that official online platforms have created new channels for communication between individual investors and companies. This behavior of information interaction has mitigated informational asymmetry between investors and companies, thereby reducing enterprise risk-taking levels.

5.3. Risk attitude

Since corporate risk-taking ultimately reflects managerial risk preferences, investor interactions may influence firm risk by shaping managers' risk attitudes. Following Li et al. (2020), we construct a proxy for managerial risk preference as the ratio of monetary funds, tradable financial assets, and accounts receivable to total operating cash outflows, where a higher value indicates a lower tolerance for risk. We then classify firms based on annual levels of managerial risk preference and conduct subsample regressions, as reported in

Table 16.

The results show that the effect of investor-enterprise interactions is significant only among firms with higher managerial risk preference. This finding suggests that interaction platforms function as an external governance mechanism that disciplines managerial behavior, reduces managers' inclination toward risk-taking, and ultimately leads to lower levels of corporate risk-taking.

6. Conclusion

Individual investors are significant stakeholders in enterprises and can benefit from the sustained appreciation of corporate value. As a result, they are motivated to monitor the investment decisions and risk selection behaviors of enterprises, thereby influencing the level of corporate risk-taking. Through empirical analysis, this paper examines the impact of investor-enterprise interactions (IEIs) on the corporate risk-taking levels of listed companies. The findings indicate that these interactions significantly reduce corporate risk-taking, with the effect being more pronounced in private enterprises and high-tech industries. Further mechanism tests demonstrate that IEIs lower corporate risk-taking levels by promoting external monitoring, improving the information environment, and influencing managerial risk attitudes.

This research presents clear policy implications. First, enterprise management should prioritize the perspectives of individual investors by actively enhancing investor relations and fostering trust and support among them. By cultivating a robust corporate governance environment, enterprises can ultimately drive stable and sustainable growth. Second, online interactive platforms have significantly lowered the costs associated with information cognition, acquisition, and integration for individual investors. To further address the informational needs of these investors, the Chinese government and regulatory authorities should promote emerging communication technologies while establishing comprehensive information disclosure systems that provide more convenient and high-quality channels for individual investors. This approach will enhance the information environment in capital markets, improving both transparency and efficiency. Finally, regulatory authorities should strengthen supervision mechanisms for online information interaction platforms to enhance the quality of interactions between investors and enterprises. This would effectively leverage individual investors' capabilities in information mining and external oversight while better protecting their interests.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.iref.2026.105443>.

Data availability

Data will be made available on request.

References

- Acharya, V. V., Amihud, Y., & Litov, L. (2011). Creditor rights and corporate risk-taking. *Journal of Financial Economics*, 102(1), 150–166.
- Antweiler, W., & Frank, M. Z. (2004). Is all that talk just noise? The information content of internet stock message boards. *The Journal of Finance*, 59(3), 1259–1294.
- Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21(2), 785–818.
- Benmelech, E., & Frydman, C. (2015). Military CEOs. *Journal of Financial Economics*, 117(1), 43–59.
- Blankespoor, E., Dehaan, E., Wertz, J., & Zhu, C. (2019). Why do individual investors disregard accounting information? The roles of information awareness and acquisition costs. *Journal of Accounting Research*, 57(1), 53–84.
- Blankespoor, E., Miller, G. S., & White, H. D. (2014). The role of dissemination in market liquidity: Evidence from firms' use of Twitter. *The Accounting Review*, 89(1), 79–112.
- Boubakri, N., Cosset, J. C., & Saffar, W. (2013). The role of state and foreign owners in corporate risk-taking: Evidence from privatization. *Journal of Financial Economics*, 108(3), 641–658.
- Chau, J., Lai, S., & Yang, Y. G. (2020). *Do you hear the people's saying? The voice of individual investors*. Working paper.
- Chen, H., Chen, J. Z., Lobo, G. J., & Wang, Y. (2011). Effects of audit quality on earnings management and cost of equity capital: Evidence from China. *Contemporary Accounting Research*, 28(3), 892–925.
- Connelly, B. L., Tihanyi, L., Certo, S. T., & Hitt, M. A. (2010). Marching to the beat of different drummers: The influence of institutional owners on competitive actions. *Academy of Management Journal*, 53(4), 723–742.
- Dechow, P. M., Myers, L. A., & Shakespeare, C. (2010). Fair value accounting and gains from asset securitizations: A convenient earnings management tool with compensation side-benefits. *Journal of Accounting and Economics*, 49(1–2), 2–25.
- Drake, M. S., Roulstone, D. T., & Thornock, J. R. (2012). Investor information demand: Evidence from google searches around earnings announcements. *Journal of Accounting Research*, 50(4), 1001–1040.
- Duarte, J., Han, X., Harford, J., & Young, L. (2008). Information asymmetry, information dissemination and the effect of regulation FD on the cost of capital. *Journal of Financial Economics*, 87(1), 24–44.
- Dyck, A., Volchkova, N., & Zingales, L. (2008). The corporate governance role of the media: Evidence from Russia. *The Journal of Finance*, 63(3), 1093–1135.
- Faccio, M. (2006). Politically connected firms. *The American Economic Review*, 96(1), 369–386.
- Faccio, M., Marchica, M. T., & Mura, R. (2011). Large shareholder diversification and corporate risk-taking. *Review of Financial Studies*, 24(11), 3601–3641.
- Faccio, M., Marchica, M. T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance*, 39, 193–209.
- Fang, L., & Peress, J. (2009). Media coverage and the cross-section of stock returns. *The Journal of Finance*, 64(5), 2023–2052.
- Francis, B., Hasan, I., & Wu, Q. (2015). Professors in the boardroom and their impact on corporate governance and firm performance. *Financial Management*, 44(3), 547–581.
- Gao, M., & Huang, J. (2020). Informing the market: The effect of modern information technologies on information production. *Review of Financial Studies*, 33(4), 1367–1411.

- Green, T. C., Jame, R., Markov, S., & Subasi, M. (2014). Access to management and the informativeness of analyst research. *Journal of Financial Economics*, 114(2), 239–255.
- Güner, A. B., Malmendier, U., & Tate, G. (2008). Financial expertise of directors. *Journal of Financial Economics*, 88(2), 323–354.
- Habib, A., & Hasan, M. M. (2017). Firm life cycle, corporate risk-taking and investor sentiment. *Accounting and Finance*, 57(2), 465–497.
- Hales, J. (2009). Are investors really willing to agree to disagree? An experimental investigation of how disagreement and attention to disagreement affect trading behavior. *Organizational Behavior and Human Decision Processes*, 108(2), 230–241.
- Hilary, G., & Hui, K. W. (2009). Does religion matter in corporate decision making in America? *Journal of Financial Economics*, 93(3), 455–473.
- Huang, A. H., Lehavy, R., Zang, A. Y., & Zheng, R. (2018). Analyst information discovery and interpretation roles: A topic modeling approach. *Management Science*, 64(6), 2833–2855.
- Huang, Y., Qiu, H., & Wu, Z. (2016). Local bias in investor attention: Evidence from China's internet stock message boards. *Journal of Empirical Finance*, 38, 338–354.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance and takeovers. *The American Economic Review*.
- Jia, W., Redigolo, G., Shu, S., & Zhao, J. (2020). Can social media distort price discovery? Evidence from merger rumors. *Journal of Accounting and Economics*, 70(1), Article 101334.
- John, K., Litov, L., & Yeung, B. (2008). Corporate governance and risk-taking. *The Journal of Finance*, 63(4), 1679–1728.
- Kim, O., & Verrecchia, R. E. (2001). The relation among disclosure, returns, and trading volume information. *The Accounting Review*, 76(4), 633–654.
- Kong, D. (2019). Minority shareholder participation and earnings management: A test of catering theory. *China Finance Review International*, 9(1), 73–109.
- Kong, D., Shi, L., & Zhang, F. (2021). Explain or conceal? Causal language intensity in annual report and stock price crash risk. *Economic Modelling*, 94, 715–725.
- Lee, C. M., & Zhong, Q. (2022). Shall we talk? The role of interactive investor platforms in corporate communication. *Journal of Accounting and Economics*, 74(2–3), Article 101524.
- Lewbel, A. (2012). Using heteroscedasticity to identify and estimate mismeasured and endogenous regressor models. *Journal of Business & Economic Statistics*, 30(1), 67–80.
- Li, K., Griffin, D., Yue, H., & Zhao, L. (2013). How does culture influence corporate risk-taking? *Journal of Corporate Finance*, 23, 1–22.
- Li, Y., Wang, P., & Zhang, W. (2023). Individual investors matter: The effect of investor-firm interactions on corporate earnings management. *Journal of Corporate Finance*, 83, Article 102492.
- Li, X. X., Yang, G. C., & Rao, P. G. (2019). The regulatory role of stock exchange comment letters: Evidence from textual analysis of merger and acquisition plans. *Economic Research Journal*, 54(5), 181–198 (In Chinese).
- Li, Z., Ying, Q., Chen, Y., & Zhang, X. (2020). Managerial risk appetite and asymmetry cost behavior: Evidence from China. *Accounting and Finance*, 60(5), 4651–4692.
- Liu, C., Luo, X. R., Sia, C. L., O'farrell, G., & Teo, H. H. (2014). The impact of XBRL adoption in PR China. *Decision Support Systems*, 59, 242–249.
- Liu, H., Tao, Y., Zeng, L., & Chen, D. (2023). Investor-enterprise interactions and shadow banking of non-financial enterprises in China. *Finance Research Letters*, 55, Article 103979.
- Malmendier, U., Tate, G., & Yan, J. (2011). Overconfidence and early-life experiences: The effect of managerial traits on corporate financial policies. *The Journal of Finance*, 66(5), 1687–1733.
- Solomon, D., & Soltes, E. (2015). What are we meeting for? The consequences of private meetings with investors. *The Journal of Law and Economics*, 58(2), 325–355.
- Tao, Y., Kong, D., Sun, N., & Li, X. (2024). Social credit and corporate risk-taking: Evidence from China. *Research in International Business and Finance*, 69, Article 102206.
- Tucker, J. W., & Zarowin, P. A. (2006). Does income smoothing improve earnings informativeness? *The Accounting Review*, 81(1), 251–270.
- Xu, W., Luo, Z., & Li, D. (2024). Investor-firm interactions and corporate investment efficiency: Evidence from China. *Journal of Corporate Finance*, 84, Article 102539.