Investor Attention, Political Risk, and Financial Markets:
Evidence from the Brexit Event Study on China's Stock Market

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Abstract. This paper studies how the domestic financial market responds to the adverse impact of foreign political events. Using the Brexit vote as a natural experiment, we focus on the role investor attention played in Chinese stock market performance under political uncertainty originating from the UK. Our findings show that investor attention exerts a mitigating effect on the negative relationship between political risk, as proxied by the Brexit shock, and financial market performance in China. These findings provide important insights for policymakers in guiding market recovery and managers in building business resilience.

Keywords: investor attention; political risk; financial markets; event study

1   Introduction

The question of how financial markets can quickly recover from the negative impact of politics has become a top issue for business owners and policymakers. Take the Brexit shock as an example, its resulting policy uncertainty serves as a critical factor impeding financial markets' recovery[1-2]. Global attention has focused on the magnitude of Brexit bad consequences, prompting scholars to explore ways to mitigate such an adverse effect caused by the Brexit event[3]. While these scholars are helpful in understanding this issue in the developed world, the extant literature may not determine whether and how the Brexit shock affects financial markets in emerging countries. Assuming that this shock negatively affects the developing financial markets, what strategies can we implement to lessen the negative impact of political risk resulting from Brexit? Our current knowledge tells us very little, as the answer concerns cross-border spillovers.

Investor attention is an essential phenomenon in capital markets. Past studies on investor attention have shown that it can motivate firms to improve their performance in information disclosure and corporate social responsibilities[4-5]. Some recent works also find that investor attention can alleviate information asymmetry through sharing firm-specific information and

social capital[6-7]. Based on these insightful findings, there are several studies that examine whether and how investor attention can still be effective under urgent and highly uncertain circumstances. It is striking that the existing literature has long shown that investor attention plays a critical role in shaping firm activities[8], but have overlooked its relationship with political events. Therefore, it is crucial to conduct further research to investigate the impact of investor attention on stock return responses to Brexit-induced political risk under policy uncertainties.

Brexit provides an ideal research environment for our study. On June 24th, 2016, the United Kingdom (UK) held a referendum to decide on whether to leave the European Union (EU). The Brexit negotiations that followed the referendum had twists and turns. It was a very difficult task for both sides to agree on the trade arrangement, border system, and immigration system after Brexit. In 2019, the British Parliament vetoed the Brexit Agreement twice, making the risk of Brexit without an agreement rise sharply, and the UK and the EU will face a "lose-lose" outcome. After nearly four years and the replacement of two prime ministers, the UK finally reached a formal agreement with the EU on January 31st, 2020. On May 11th, 2022, the British government demanded to renegotiate the "Northern Ireland Protocol" in the agreement; otherwise, it would tear up the relevant content. The EU warned that the Brexit agreement was legally binding, and that renegotiation was "not an option." Despite the passage of six years since the referendum, we continue to observe the Brexit impact on the global financial market.

Given the profound effects of the Brexit, our study utilizes the initial Brexit outbreak as a natural experimental setting to investigate the impact of the Brexit shock on financial markets in emerging countries, aiming to partly fill the above knowledge gap. Furthermore, we concentrate on the significance of investor attention and investigate its impact on firms' stock return responses to Brexit-induced political risk, particularly in the face of uncertainty. In the analysis, we use an event study and a panel regression to examine the short-term effects of investor attention on the relationship between political risk and stock return changes in response to the impacts of Brexit. This study selects Brexit as the major event to investigate the potential impact of political risk because this shock caused complex, long-standing, and worldwide stock market reactions due to investors' interests in Brexit. Our findings show that investor attention exerts a mitigating effect on the negative relationship between the Brexit shock and financial market performance in China. The above finding provides policymakers with insights into how to guide financial market recovery in the context of political risk. It also sheds light on establishing a corporate resilient business model. Thus, we broaden the scope of research on the nexus between firm-level political risk and financial markets.

2 Methodology

2.1 Data source and sample selection

This paper focuses on all Chinese publicly listed companies in the Shanghai and Shenzhen A-shares markets in the Brexit year. We primarily source stock return data and corporate financial data from the CSMAR and Wind databases. With reference to the previous studies[1-2], we construct the base sample step by step. First, we excluded financial and ST (Special

Treatment) businesses. Next, we excluded businesses with less than zero net assets and those with missing data. Then, we eliminated businesses that lacked value in our concerned explanatory variable. Finally, for continuous variables, we performed winsorizing at the 1% level. Following these steps, we obtained 3,288 enterprises in the sample.

2.2 Variables construction

The event study measures the short-term capital market performance of enterprises after Brexit, calculating the cumulative abnormal return (CAR) of these enterprises to reflect their short-term capital market performance following the onset of Brexit. We set the event date for Beijing, which corresponds to the UK's referendum on EU membership on June 24th, 2016. Secondly, we select the benchmark event window period as the trading day before the event disclosure date (-1, 0). Again, this paper sets the event estimation window to 180 days before the UK's referendum on EU membership event date, i.e., (-190, -11). In conclusion, this paper employs the market model as the benchmark method and selects the CSI (China Securities Index) 300 return as the market return to gauge the firm's cumulative excess return, calculated in a similar way as described in Ding et al.'s work[9]. The related literature measures investor attention, the explanatory variable, by taking the natural logarithm of one plus the number of analysts (teams) who have followed a particular company in a given year[6-7].

2.3 Baseline regression

This paper measures how well firms did in the short term on the capital market after Brexit by looking at their cumulative abnormal return. It also creates investor attention indicators and a benchmark regression model (1) to see how investor attention affected short-term capital performance after Brexit, as shown below.

$$CAR(-1,0)_i = \alpha + \beta_1 \times IA_{it} + Controls_{it} + Ind + Pro + u_{it} \tag{1}$$

where $CAR(-1,0)_i$ is firm i's Cumulative Abnormal Return (CAR) within the benchmark event window (-1,0), indicating its post-Brexit short-term capital market performance. IA_{it} measures the degree of firm-specific investor attention by taking the natural logarithm of the number of analysts (teams) who have followed firm i in a year plus one. Its coefficient β_1 reflects the impact of such attention on post-Brexit short-term capital market performance.

$Controls_{it}$ are control variables, covering four aspects including firm governance structures, financial status, growth, and ownership. Ind is firm industry-level fixed effect, Pro is the firm registration place, and u_{it} is the random error term. In order to ensure the validity of the regression results, all regressions include industry fixed effects and province fixed effects, and the standard errors are adjusted by clustering at the industry level. In line with the treatment of Ding et al.[10] and Masulis and Mobbs[11], Table 1 displays control variables used here.

Table 1. List of control variables

Notation	Definition
Crl	Ratio of the shareholding of the largest shareholder
Ac	Ratio of managing cost divided by operating income

Notation	Definition
Pay	Ln of the total compensation of the top three executives
Lnboard	Natural logarithm of the number of board of directors of the firm
Soe	A dummy variable indicating state-owned enterprise
Size	Natural logarithm of total assets
Dar	Ratio of total liabilities divided by total assets
Far	Ratio of fixed assets divided by total assets
Roa	Ratio of net profits relative to total assets
Age	Number of years after the firm's establishment
Ind	Industry that firm belongs to
Pro	Province that firm is located at

3   Benchmark results

The purpose of this paper is to explore how investor attention affects financial market performance in the context of political risk with the regression specification (1). The first and second column of Table 2 summarize the results, respectively with and without controlling for firm governance structure, financial status, growth, firm ownership, and industry/provincial fixed effects. Our estimated statistically positive coefficients show that investor attention consistently mitigates the negative association between the Brexit political shock and the contemporaneous Chinese firms' financial market performance as measured by CAR.

Table 2. Baseline regression estimation results

	CAR	CAR
IA	0.0179***	0.0144***
	(5.6980)	(5.2260)
Controls	No	Yes
Constant	-0.0579	-3.0238*
	(-0.5825)	(-2.0511)
Ind	Yes	Yes
Pro	Yes	Yes
Observations	2,910	2,910
R^2	0.0063	0.0704

Notes: t-statistics in parentheses; *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the industry level.

4   Discussion about the long-term effect

4.1   Specification and variables

In the long-term effect analysis, the Quarterly Return of Assets (QROA) of the firm is selected to indicate the firms' performance from the long-term perspective, and the generalized Difference in Difference in Difference model is constructed by drawing on the method of Ding et al. (2022) and steps as follows. Model (2) tests the relationship between investor attention and firms' performance from the long-term perspective.

$$QROA_{it}=\alpha+\beta_2\times Post_t\times CAR(-1,0)_i\times IA_{it}+Controls_{it}+Quar+Ind+Pro+u_{it} \qquad (2)$$

where subscript i represents the firm. $QROA_{it}$ is the return on total assets of firm i in quarter t, which indicates the firms' performance from the long-term perspective; $Post_t$ is a dummy time variable for the outbreak of Brexit, which is 0 if the date is before June 24th, 2016 (the date of the UK's referendum on EU membership), and 1 if it is thereafter. $CAR(-1,0)_i$ indicates firm i's cumulative abnormal return, which reflects the extent to which the firm is affected by the Brexit. IA_{it} denotes the investor attention of firm i in quarter t.

The estimated coefficient β_2 indicates the impact of the firm's investor attention on its performance after the Brexit from the long-term perspective. The difference from the previous is that $Controls_{it}$ is a control variable for firm i at season t, which does not include quarter-level return on assets, and Quar represents quarterly fixed effects. The period of sample contains 60 quarters from the first quarter of 2008 to the fourth quarter of 2022.

4.2   Estimation results

First, to analyze the impact of investor attention on firms' performance after Brexit from the long-term perspective. This paper conducts a regression for Model (2) is regressed, and the results are shown in Table 3. We report the estimated results without control variables in column (1), and the estimated results with control variables in column (2)

Table 3. The long-term effect of investor attention

	(1) QROA	(2) QROA
Post×CAR(-1,0)×IA	0.0197***	0.0618***
	(4.7611)	(2.9930)
Controls	No	Yes
Ind	Yes	Yes
Pro	Yes	Yes
Quar	Yes	Yes
Observations	140,924	140,924
R^2	0.2128	0.2148

Notes: t-statistics in parentheses; *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the industry level.

The results in Table 3 show that the coefficient of Post×CAR(-1,0)×IA in column (1) is significantly positive at the 1% level of significance, and the coefficient of Post×CAR(-1,0)×IA

in column (2) is also significantly positive at the 1% level of significance, which indicates that investor attention promote corporate financial performance in the long run after a Brexit.

5   Conclusions

In conclusion, concern over how financial markets can swiftly rebound from the adverse effects of Brexit has risen to the forefront of discussions among entrepreneurs and policymakers. Leveraging the Brexit shock as a real-world test, this paper delves into how investor attention shapes financial market performance during political risk. Our research indicates that investor attention mitigates the negative correlation between political risk (specifically, the Brexit shock) and financial market performance. These revelations provide policymakers with valuable insights into how to steer the recovery of financial markets in the context of political risk.

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