

Geopolitical Shocks, Internationalization, and Stock Market Reactions: Evidence from Chinese A-Share Firms during the U.S.–China Trade War

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Abstract

This study examines how geopolitical shocks influence stock market reactions among Chinese A-share firms, with a focus on the 2018–2020 U.S.–China trade war. Using a multi-event study framework combined with firm fixed-effects regressions, we analyze cumulative abnormal returns (CARs) around ten major escalating and easing announcements. The results show a pronounced asymmetry: escalation events trigger significantly negative CARs, whereas easing announcements generate positive yet short-lived responses. Firm-level internationalization, measured through overseas revenue exposure, cross-listing, and outward foreign direct investment, exhibits negative but statistically weak associations with CARs, suggesting that systemic uncertainty dominates firm-specific fundamentals during geopolitical conflicts. These findings enrich understanding of how global political tensions transmit through emerging financial markets and highlight the limited moderating role of internationalization in short-term valuation effects.

Keywords

Geopolitical Risk; Trade War; Cross-Listing; Outward Foreign Direct Investment; Event Study.

1. Introduction

Geopolitical tensions have increasingly become a defining source of uncertainty in global financial markets. The U.S.–China trade war between 2018 and 2020 represents one of the most consequential bilateral conflicts in recent decades, during which repeated tariff escalations, negotiation disruptions, and retaliatory measures led to substantial volatility in asset prices across both economies. Understanding how firms respond to such shocks is important not only for financial market participants but also for policymakers concerned with systemic stability.

Existing research documents that trade-related announcements generated sharp negative reactions in Chinese and U.S. stock markets, with escalation events having a particularly strong impact[7]. Nevertheless, the extent to which firms' global engagement shapes their sensitivity to geopolitical shocks remains insufficiently understood. Internationalization may amplify exposure by linking firms more closely to foreign markets, global investors, supply chains, and information flows[3][6]. Yet it may also provide resilience through diversified revenue sources and operational flexibility[14][15]. Whether these competing mechanisms result in stronger or weaker valuation effects during geopolitical conflicts is an open empirical question[8].

This study investigates stock market reactions of Chinese A-share listed firms to ten major U.S.–China trade war announcements. By combining a multi-event study design with firm fixed-effects regressions, we evaluate both aggregate market responses and cross-sectional heterogeneity related to internationalization, which is captured through overseas revenue dependence, cross-listing status, and outward foreign direct investment (OFDI).

Our findings reveal two central insights. First, geopolitical shocks exhibit strong asymmetry: escalation announcements trigger significantly negative cumulative abnormal returns (CARs), while easing announcements generate modest and short-lived gains. Second, internationalization variables, although negative in direction, do not significantly explain differences in firm reactions, suggesting that systemic geopolitical uncertainty overwhelms firm-level characteristics during periods of heightened tension.

This article contributes to the literature by:

- (1) providing new multi-event evidence on how geopolitical shocks are priced in China's stock market;
- (2) jointly examining three dimensions of internationalization rarely studied together;
- (3) demonstrating that macro-level uncertainty dominates idiosyncratic fundamentals in shaping short-term valuation effects.

2. Literature Review

2.1. Geopolitical Shocks and Stock Market Responses

Geopolitical tensions, such as trade disputes, diplomatic conflicts, and sanctions, have been shown to produce rapid and sizable financial market reactions[5]. Studies on the U.S.–China trade war document that tariff announcements triggered immediate declines in Chinese and U.S. equity markets, heightened volatility, and revisions in earnings expectations[7][9]. Escalation events tend to generate more pronounced losses than the gains produced by easing announcements, reflecting asymmetry in how negative versus positive shocks are priced[7][8]. Broader research on economic policy uncertainty similarly finds that unexpected political or policy disruptions suppress investment, reduce firm valuation, and lead to capital reallocation.

2.2. Firm-Level Heterogeneity under Geopolitical Risk

Although geopolitical shocks operate at the macro level, their effects on firms are often heterogeneous. Export-intensive firms, supply-chain-integrated manufacturing sectors, and companies directly targeted by tariffs typically experience stronger negative valuation impacts[9][16]. Ownership structure may also shape sensitivity to geopolitical shocks: some studies find that state-owned enterprises face sharper declines due to policy exposure, while others report that private firms suffer more owing to weaker financial buffers[17]. These mixed results imply that simple firm attributes cannot fully explain cross-sectional differences during major geopolitical events.

2.3. Internationalization as a Source of Exposure and Resilience

Internationalization may amplify vulnerability by increasing firms' dependence on foreign markets, exposing them to regulatory risk, or strengthening links with global investor sentiment. Cross-listed firms, in particular, often experience faster and more synchronized reactions to global news because of higher disclosure requirements and the presence of international investors[11]. Similarly, firms with OFDI may face political or operational risk abroad when bilateral tensions escalate[4].

Conversely, internationalization may serve as a risk-mitigation channel[14]. Overseas subsidiaries can diversify revenue streams, reduce reliance on a single export destination, and enable supply-chain adjustments during periods of tariff uncertainty. Multinational enterprises may also rely on internal capital markets or international financing channels to cushion shocks. Prior evidence therefore portrays internationalization as a double-edged sword, whose net impact under geopolitical stress remains inconclusive.

2.4. Research Gaps

Despite substantial research on the trade war's aggregate effects, several gaps remain. First, most studies focus on export intensity alone, paying limited attention to cross-listing or OFDI. Second, existing work often examines each internationalization dimension separately, leaving unclear whether firms combining multiple forms of global engagement are more or less resilient. Third, evidence on the Chinese market using multi-event identification with firm fixed effects is still limited[12].

This study addresses these gaps by jointly analyzing three aspects of internationalization-overseas revenue exposure, cross-listing, and OFDI, within a multi-event empirical framework. This approach provides a more comprehensive assessment of how globally engaged firms respond to geopolitical shocks.

3. Data Construction

The empirical analysis is based on firm-level data from Chinese A-share listed companies. Stock price and financial information are primarily collected from the CSMAR TuShare. CSMAR is widely recognized as one of the most comprehensive databases for historical stock market and firm-level financial information. It provides standardized and audited data, making it particularly suitable for rigorous empirical research; TuShare provides flexible access to high-frequency and real-time financial data through Python-based interfaces. With an authorized token, researchers can easily call the database within Python to retrieve the desired datasets and perform customized event study procedure. Meanwhile, iFinD is employed primarily as a cross-checking tool, especially for verifying event date returns and ensuring that no observations are missing during periods of high volatility. The list of cross-listed firms is also obtained from iFinD. The sample period covers March 2018 to January 2020, which corresponds to the key phases of the U.S.–China trade war. This period captures both the initial tariff announcements and subsequent rounds of escalation, as well as partial de-escalation following the “phase-one” deal in late 2019. Limiting the sample period ensures that estimated effects are directly linked to the trade war rather than to unrelated macroeconomic shocks.

Starting sample includes all firms listed on the Shanghai and Shenzhen stock exchanges during the period. Several filters are applied to refine the dataset. First, companies in the financial sector are excluded because of their fundamentally different balance sheet structures and regulatory requirements. Second, firms designated as ST (special treatment) due to financial distress or accounting irregularities are removed, as their abnormal returns may be driven by firm-specific risk unrelated to the trade war. Third, companies with substantial missing data in financial variables or daily returns are excluded to maintain data consistency. The analysis focuses on how firms' internationalization characteristics shape their market reactions by examining whether abnormal returns vary with firms' degree of global engagement. Three measures are employed. First, a cross-listing dummy indicates whether the firm is listed on a foreign exchange such as Hong Kong or the United States. Second, revenue dependence on exports is captured by the share of overseas sales in total revenue. Third, an OFDI dummy is constructed to capture firms' overseas investment activity, which equals one if the firm had outbound foreign direct investment in the preceding year ($t-1$), and zero otherwise. This lagged specification mitigates concerns about reverse causality between trade war events and contemporaneous changes in OFDI status.

4. Methodology

4.1. Event Study

This dissertation employs an event study framework to examine how U.S.–China trade war announcements influenced Chinese listed firms[10]. Established by MacKinlay (1997), the event study assumes that stock prices rapidly incorporate new information, allowing abnormal returns to reflect the unanticipated component of policy shocks. The method’s strength lies in isolating the effect of specific, time-stamped events while controlling for broader market trends. Event selection follows a two-stage validation process.

Trade war events are identified based on public announcements and credible financial media coverage of major U.S.–China trade actions from March 2018 to January 2020[9]. The study includes only those events that introduced new and significant trade policy information likely to affect investor expectations. Event dates are selected from official sources such as the U.S. Trade Representative (USTR) press releases, Bloomberg, and Reuters. A total of 10 non-overlapping events is chosen, representing key tariff escalations and negotiation milestones. These events are used to define short event windows $[-1, +1]$ for estimating CARs, and conduct robustness checks using $[-3, +3]$ and $[-5, +5]$ windows. To reduce subjectivity in choosing event dates, this dissertation first compiles a list of key announcements associated with U.S.–China trade tensions. Then retrieve daily Google Trends data for related search terms “Trade War” during Jan 1, 2018, to Jan 31, 2020[1]. Drawing on established practice, the study designates a date as a candidate event if its search index exceeds a threshold of 40 and ensures that successive events are separated by at least seven calendar days to prevent overlapping. The final set of events thus comprises those announcements that coincide with observable spikes in search activity, which indicates heightened public and market attention. For any announced event lacking a corresponding spike, the study separately justifies its inclusion based on policy significance rather than pure popularity.

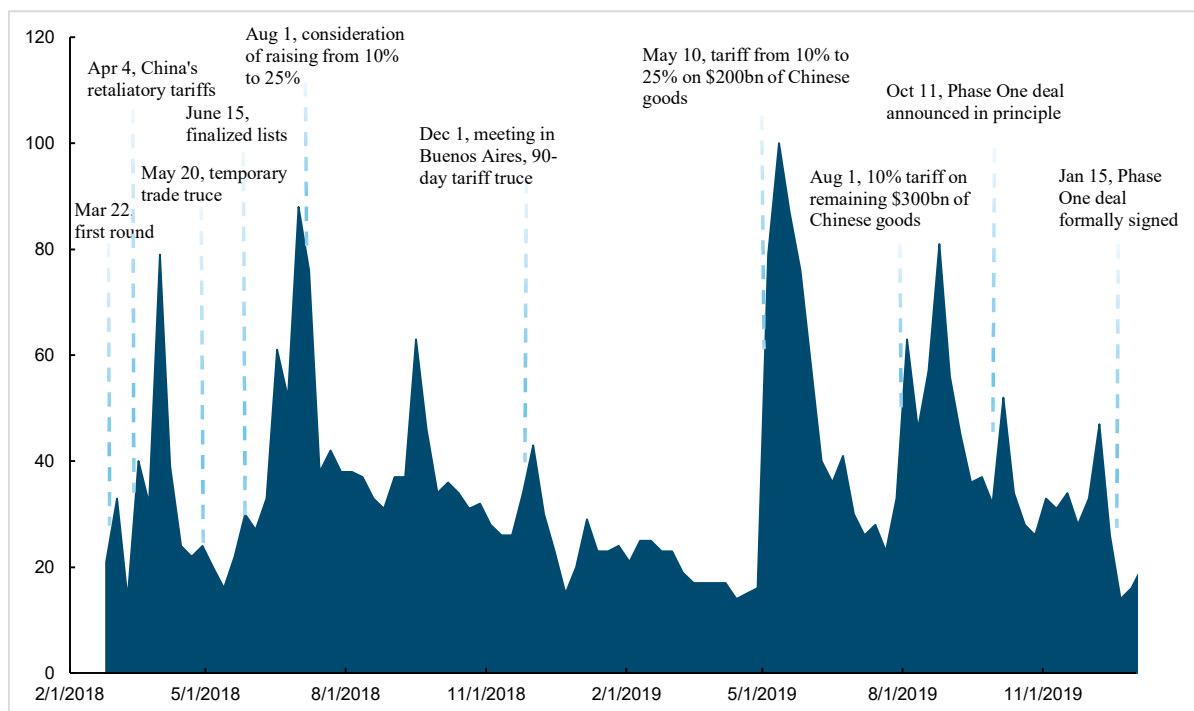


Figure 1. Google Trends data for “Trade War” during Jan 1, 2018, to Jan 31, 2020

Table 1. Identified Trade War Events

Date	Event Description	Event Type
Mar 22, 2018	U.S. announces first round of tariffs on \$50 billion of Chinese imports under Section 301	Escalation
Apr 4, 2018	China responds with retaliatory tariffs on 106 U.S. products	Escalation
May 20, 2018	U.S. and China announce a temporary trade truce	Easing
June 15, 2018	U.S. finalizes tariff list; China immediately responds with its own tariffs	Escalation
Aug 1, 2018	Trump orders consideration of raising proposed tariff from 10% to 25% on \$200bn	Escalation
Dec 1, 2018	Xi-Trump meeting in Buenos Aires; agreement on 90-day tariff truce	Easing
May 10, 2019	U.S. increases tariff from 10% to 25% on \$200bn of Chinese goods	Escalation
Aug 1, 2019	Trump announces 10% tariff on remaining \$300bn of Chinese goods	Escalation
Oct 11, 2019	Phase One deal announced in principle	Easing
Jan 15, 2020	Phase One deal formally signed in Washington D.C.	Easing

To assess whether the trade war events had a statistically significant impact on stock returns, the study conducts t-tests on firm-level abnormal returns and cumulative abnormal returns across different event windows. The tests examine whether the average CARs around easing versus escalating events differ significantly from zero and from each other. The expectation is that escalation events will be associated with significantly negative average CARs, reflecting heightened risk and adverse financial expectations. By contrast, easing events are expected to produce positive average CARs, consistent with improved market sentiment. Abnormal returns are estimated using the market model, where a firm's return is regressed on the CSI 300 index return during a pre-event estimation window of $[-120, -20]$ trading days before each event. This choice provides enough observations while avoiding contamination from the event itself. Event windows are defined as $[-1, +1]$ around the announcement date to capture immediate market responses and avoid being influenced by other events. Robustness checks also consider longer windows, such as $[-3, +3]$ and $[-5, +5]$.

The abnormal return for firm i on day t is:

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t})$$

where $R_{i,t}$ is the actual return of firm i on day t , $R_{m,t}$ is the market index return, and α_i, β_i are firm-specific parameters estimated from the market model. The CAR is obtained by summing up ARs over the chosen event window. The approach to evaluate the aggregate influence of escalating and easing announcements relies on the Cumulative Average Abnormal Return (CAAR), which manifests the overall market reaction by averaging CARs across events:

$$CAAR_{group}(X) = \frac{1}{N_{group}} \sum_{e=1}^{N_{group}} CAR_{i,e}(X)$$

$CAAR_{group}(X)$ is the cross-sectional means of CARs across all N group events belonging to escalating/easing group. Note that in this part, CAR is computed cumulatively from day -7 up

to each relative day, rather than from the -1 of the event day. The purpose of this choice is to smooth out day-to-day noise and avoids large oscillations, making the pre- and post-event trajectories more visually comparable.

Table 2. CAAR by Event Type over the [-7,+7] Range

Relative day	type=0 CAAR	type=1 CAAR
-7	0.00297	0.00587
-6	-0.00750	0.00136
-5	-0.00921	0.00190
-4	-0.00357	0.00012
-3	-0.00467	0.00363
-2	-0.00421	0.00344
-1	-0.00316	0.00464
0	-0.00082	0.00385
1	0.00397	-0.00786
2	0.00033	-0.00375
3	0.00206	-0.00709
4	0.00246	-0.00358
5	-0.00061	-0.00462
6	-0.00201	0.00156
7	-0.01512	0.00381

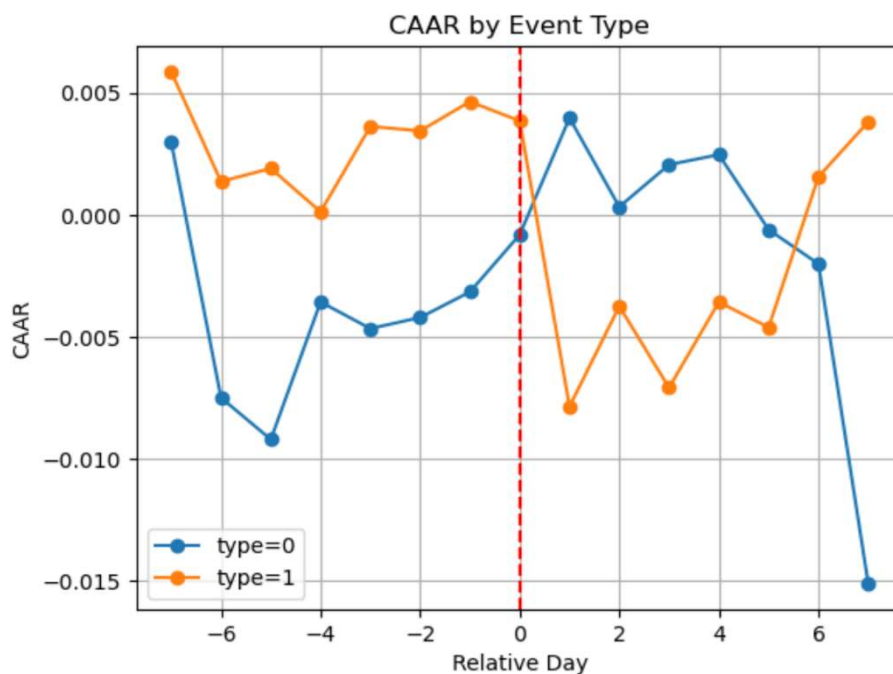


Figure 2. CAAR by Event Type

The figure plots the CAAR for easing (type=0) and escalating (type=1) announcements aligned by event date (day 0). As shown, both series fluctuate around zero prior to the announcement, indicating no systematic pre-trend. At the event day, the curves diverge: easing events are followed by a positive CAAR trajectory, while escalating events generate a negative path. This

divergence demonstrates that the market clearly differentiates between the two types of trade war news, responding optimistically to easing announcements and pessimistically to escalation. The strongest impact occurs within the immediate days after the event, whereas longer horizons exhibit higher volatility and partial reversal.

Table 3. One-sample T-tests Results

Window	Type	Mean	t-stat	p-value	Sig.
[-1,+1]	0	0.004	6.09	0	***
[-1,+1]	1	-0.0079	-9.92	0	***
[-3,+3]	0	0.0021	2.72	0.007	**
[-3,+3]	1	-0.0071	-7.93	0	***
[-5,+5]	0	-0.0006	-0.7	0.483	
[-5,+5]	1	-0.0046	-4.85	0	***

The one-sample t-tests show that in short event windows, easing announcements are associated with significantly positive CARs (0.40%*** in [-1,+1], 0.21%** in [-3,+3]), while escalating announcements are associated with significantly negative CARs (-0.79%*** in [-1,+1], -0.71%*** in [-3,+3]). In the longer window [-5,+5], the positive effect of easing events disappears and becomes statistically insignificant, whereas the negative effect of escalating events persists (-0.46%***). This suggests that optimism from easing events is short-lived, while the adverse impact of escalation is more enduring.

Table 4. Two-sample T-tests Results

Window	Diff Mean (Easing – Escalating)	t-stat	p-value	Sig.
[-1,+1]	0.0118 (1.18%)	11.8	0	***
[-3,+3]	0.0091 (0.91%)	7.9	0	***
[-5,+5]	0.0040 (0.40%)	3.1	0.002	**

The two-sample t-tests confirm that easing and escalating events produce significantly different CARs across all windows. The difference is largest in the immediate window [-1,+1] (1.18%***) and gradually declines in longer windows. This pattern reinforces the view that the stock market reacts in opposite directions to the two types of announcements, with the strongest divergence concentrated around the event date.

4.2. Baseline Regression

To further investigate the determinants of firms' stock price reactions to the trade war events, the dissertation conducts cross-sectional regressions using the CARs as the dependent variable. While the event study in the previous section illustrates that Chinese firms experienced significant cumulative abnormal returns around escalation and easing announcements, the magnitude and direction of these reactions may vary across firms depending on their characteristics and the type of event.

The study relies on firms' international exposure, measured by the ratio of overseas revenue to total revenue, to capture the extent to which a firm's stock returns are dependent on overseas markets. In addition, since cross-listing represents another important channel of global integration, the study splits the sample into firms with and without cross-listings and conduct separate regressions for each group. This approach enables us to examine whether the determinants of stock price reactions differ systematically between firms that are cross-listed

in overseas markets and those that are only domestically listed. In the regressions, the study controls for other firm-level characteristics such as firm size, leverage, ROE, and state ownership, as these factors may also influence market reactions. It also includes an event-type dummy to capture differences in market responses between escalation and easing announcements.

Table 5. Descriptive Statistics

	count	mean	sd	min	max
car_m1p1	31097	-.0033235	.0574281	-.6978162	.74827
car_m3p3	31093	-.0020415	.0873439	-.9515915	.6642736
car_m5p5	31086	-.0007732	.1058544	-1.163381	1.150033
ratio	30402	.127001	.2126581	0	.9229249
ofdi_dummy	31046	.2256974	.4180475	0	1
cross_listing_dummy	31097	.0227353	.1490608	0	1
size	30153	22.23613	1.332122	17.80353	28.63649
lev	30153	.4068098	.19938	.0083591	1.69812
roe	30122	.0694854	.1952166	-6.850016	1.751119
soe	30153	.3533313	.4780124	0	1
type_dummy	31097	.588449	.4921225	0	1
Observations	31097				

Table 5 reports the descriptive statistics for the main variables used in the regression analysis: *CAR_m1p1*, *CAR_m3p3*, *CAR_m5p5*: CARs over event windows $[-1,+1]$, $[-3,+3]$, and $[-5,+5]$ around the event day respectively.

Ratio: The share of overseas revenue in total revenue.

OFDI_dummy: A binary variable equal to 1 if the firm has outbound foreign direct investment, and 0 otherwise.

Cross_listing_dummy: A binary variable equal to 1 if the firm has a cross-listing on overseas exchanges (e.g., in Hong Kong or the United States), and 0 otherwise.

Size: Firm size, measured as the natural logarithm of total assets.

Lev: Leverage ratio, measured as total liabilities divided by total assets.

ROE: Return on equity, reflecting profitability.

SOE: A dummy variable equal to 1 if the firm is state-owned, and 0 otherwise.

Type_dummy: A dummy variable equal to 1 for escalation events and 0 for easing events, distinguishing the two categories of trade war announcements.

The three CAR measures show negative means, indicating on average slightly adverse market reactions to trade war events, which, to some extent, echoes Chengying et al. (2022)'s finding that the market's gains during "good news" were smaller than the losses from "bad news". The dispersion increases with longer event windows. The mean overseas revenue ratio is 12.7%, suggesting most firms remain domestically oriented. 22.6% of the firms have overseas investment activities, and only 2.3% of firms are cross-listed. Regarding firm characteristics, the average size is 22.24, the mean leverage is 40.7%, and the mean ROE is 6.9% with extreme values present. About 35.3% of firms are SOEs. In terms of events, 58.8% are escalation announcements, which also accounts for the negative means of CARs. The final sample includes 31,097 firm-event observations. The final sample contains 31,097 firm-event observations.

Having documented the distributional properties of variables, the study now estimates fixed-effects regressions to isolate the within-firm variation in stock price reactions around trade-war announcements. The dependent variable is the CAR, defined as

$$CAR_{i,e}^{(w)} = R_{i,t} - (\alpha_i + \beta_i R_{m,t})$$

for firm i around event e over window $w \in \{-1,+1\}, \{-3,+3\}, \{-5,+5\}$ (car_m1p1 , car_m3p3 , and car_m5p5). The main regressor is firms' international exposure measured by the overseas revenue ratio ($ratio$). Then it further includes standard firm-level controls: firm size ($size$), leverage (lev), profitability (roe), and state0020ownership (soe). To absorb unobserved heterogeneity, it includes firm fixed effects (μ_i) and event-date fixed effects (λ_e) [8]. The baseline specification is:

$$CAR_{i,e}^{(w)} = \alpha + \beta_1 ratio_{i,e} + \beta_2 size_{i,e} + \beta_3 lev_{i,e} + \beta_4 roe_{i,e} + \mu_i + \lambda_e + \varepsilon_{i,e}$$

Drawing on theories of international business and corporate finance, the expectations are as follows:

1) Core Explanatory Variable: Overseas Revenue Ratio ($ratio_{i,e}$)

Firms with a higher share of revenue generated from foreign markets are more deeply integrated into global supply chains and international customer bases. According to internationalization theory, such firms face greater vulnerability to geopolitical shocks because tariffs, retaliatory measures, and policy uncertainty directly increase operational costs and disrupt cross-border transactions (Buckley et al., 2007). During a trade war, these firms are more likely to experience downward revisions of future earnings expectations by investors.

Hypothesis 1 (H1):

$$\beta_1 < 0$$

A higher overseas revenue ratio is expected to be associated with lower CARs during trade war events.

2) Control Variable: Firm Size ($size_{i,e}$)

Larger firms typically have more diversified operations [13], stronger risk management capabilities, and better access to capital markets. These attributes may allow them to withstand external shocks more effectively, leading to relatively less negative or even positive market reactions (Lu and Zhou, 2025).

Expected Sign:

$$\beta_2 > 0$$

3) Control Variable: Leverage ($lev_{i,e}$)

High leverage can amplify financial fragility, as firms with substantial debt obligations may face heightened risk during periods of uncertainty. Conversely, in some contexts, heavily leveraged firms may receive implicit support from banks or governments to prevent systemic failure (Ozdagli & Wang, 2022).

Expected Sign:

β_3 is theoretically ambiguous and could be either positive or negative.

4) Control Variable: Return on Equity ($roe_{i,e}$)

Firms with higher profitability are generally perceived as financially healthier and more resilient. Strong profitability may signal stability to investors and help mitigate panic-driven sell-offs during adverse events.

Expected Sign:

$$\beta_4 > 0$$

The results of the regression are as follows:

Table 6. Baseline FE Regressions: CAR Windows

Variables	[-1,+1]	[-3,+3]	[-5,+5]
ratio	-0.0137 (0.0101)	-0.0121 (0.0135)	-0.0151 (0.0159)
size	-0.0024 (0.0033)	0.0051 (0.0057)	0.0164** (0.0073)
lev	0.0224** (0.0096)	0.0179 (0.0157)	0.0143 (0.0196)
roe	-0.0022 (0.0041)	-0.0071 (0.0057)	-0.0162** (0.0081)
Observations	30101	30101	30101
Adj. R-squared	0.229	0.201	0.142
Firm FE	Yes	Yes	Yes
Event-date FE	Yes	Yes	Yes

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Across all event windows, the coefficient on the overseas-revenue ratio is negative: -0.0137 in [-1,+1], -0.0121 in [-3,+3], and -0.0151 in [-5,+5]. But statistically imprecise given standard errors. This pattern supports H1 in sign but the effects are not distinguishable from zero at conventional levels. The imprecision is consistent with annual measurement of exposure and limited within-firm variation under firm fixed effects. Size loads close to zero in shorter windows and turns positive and statistically significant in the widest window. This suggests that larger firms are more stable once short-term announcement noise is smoothed out over several days. Leverage shows a positive link with CARs in the shortest window, but the effect fades in wider windows. This short-term positive relationship fits the idea that creditor support can help highly leveraged firms during news shocks, though the effect does not last. ROE is close to zero in short windows but turns negative and significant in the [-5, +5] window, opposite to the expected positive sign. A possible reason is that high-ROE firms in this sample are more exposed to export-oriented or policy-sensitive sectors, which this study does not explicitly account for. Adjusted R^2 drops from 0.229 in the [-1, +1] window to 0.201 in [-3, +3] and 0.142 in [-5, +5], showing that firm-specific variation increases as the event window widens. Taken together, the results indicate exposure-driven vulnerability in direction but with limited statistical precision at the daily horizon, while firm size shows stabilizing effects over wider

windows. Leverage can offers short-run buffer and profitability does not ensure against trade-policy shocks.

4.3. Heterogeneity

The next step is to test whether the exposure–return relationship changes depending on firms' internationalization features. Cross-listing increases visibility to global investors and speeds up information flow, while OFDI ties firms more closely to foreign markets[11][2]. To test this, the model adds two interaction terms: $ratio \times cross_listing_dummy$ and $ratio \times ofdi_dummy$. This avoids introducing time-invariant level effects that are already absorbed by firm fixed effects[8]. The same setup is used as before, with firm and event-date fixed effects and standard errors clustered by firm.

Table 7. Interaction Regressions (Compact)

Variables	[-1,+1]	[-3,+3]	[-5,+5]
Overseas revenue ratio	-0.0169 (0.0115)	-0.0151 (0.0156)	-0.0092 (0.0176)
Ratio × Cross-listing	0.0024 (0.0346)	-0.0302 (0.0619)	-0.0337 (0.0725)
Ratio × OFDI	0.0080 (0.0092)	0.0080 (0.0133)	-0.0133 (0.0149)
Observations	30101	30101	30101
Adj. R-squared	0.228	0.201	0.142
Firm FE / Event-date FE / Cluster	Yes / Yes / Firm	Yes / Yes / Firm	Yes / Yes / Firm

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Only key interactions are shown. Controls (Size, Leverage, ROE) included in all columns but omitted from display.

The overseas-revenue ratio is negative in all windows but remains statistically imprecise with firm-clustered SEs. This keeps the baseline reading intact: more foreign-revenue exposure tends to coincide with lower CARs around trade-war announcements, yet the slope is not distinguishable from zero. The interaction that Cross-listing as a moderator is small and insignificant in [-1,+1] and becomes more negative in wider windows but stays far from significant given large SEs. This provides no statistical evidence that cross-listing systematically amplifies or attenuates exposure sensitivity at daily horizons. The interaction that OFDI as a moderator is slightly positive in [-1,+1] and [-3,+3] and turns mildly negative in [-5,+5], all insignificant. Interpreted cautiously, OFDI does not deliver a robust buffering or amplifying effect in the short run.

In this setting, statistically insignificant coefficients may occur for two structural reasons. First, the moderating terms $ratio \times cross_listing_dummy$ and $ratio \times ofdi_dummy$ draw identification from relatively small subgroups. When the shares of cross-listed and OFDI firms are limited, the effective variation behind the interaction slopes contracts, standard errors inflate, and hypothesis tests have low power. Second, the specification includes event-date fixed effects, which absorb all shocks common to firms on a given announcement day. This design is desirable for internal validity but raises the bar for detection. Only within-day, cross-sectional

differences across firms remain available to identify heterogeneous responses. With common movements netted out, any incremental moderation by cross-listing or OFDI must be large to overcome sampling noise.

4.4. Robustness Check

To assess sensitivity to outliers and to reduce collinearity with fixed effects, the overseas-revenue ratio is winsorized at the 1st/99th percentiles and demeaned within firm.

Table 8. Winsorized & Within-Firm Demeaned Exposure

Variables	[-1,+1]	[-3,+3]	[-5,+5]
Overseas revenue (winsorized, within-firm demeaned)	-0.0138 (0.0102)	-0.0118 (0.0137)	-0.0146 (0.0160)
Observations	30101	30101	30101
Adj. R-squared	0.229	0.201	0.142
Firm FE / Event-date FE / Cluster	Yes / Yes / Firm	Yes / Yes / Firm	Yes / Yes / Firm

Notes: Exposure is winsorized at the 1st/99th percentiles and demeaned within firm. All models include firm and event-date fixed effects; standard errors clustered by firm. Size, Leverage and ROE are omitted for being the same with previous results.

The coefficient on the transformed exposure remains negative across all windows and statistically imprecise, with magnitudes comparable to the baseline. This confirms that the directional exposure-return association is not driven by tails or scaling, and inference is unchanged. Coefficients on the control variables are omitted for brevity because the specification is identical to the baseline. All models include firm and event-date fixed effects, with standard errors clustered by firm.

To assess whether inference depends on the assumed error correlation, the analysis re-estimates the baseline using standard errors clustered by event date, keeping firm and event-date fixed effects and the winsorized. Clustering by event date is to allow arbitrary cross-sectional correlation among firms on the same announcement day.

Table 9. Event-Date Clustering (Winsorized & Within-Firm Demeaned Exposure)

Variables	[-1,+1]	[-3,+3]	[-5,+5]
Overseas revenue (winsorized, within-firm demeaned)	-0.0138* (0.0065)	-0.0118 (0.0097)	-0.0146 (0.0123)
Size	-0.0024 (0.0056)	0.0051 (0.0167)	0.0164 (0.0238)
Leverage	0.0224 (0.0142)	0.0179 (0.0370)	0.0143 (0.0407)
ROE	-0.0022 (0.0032)	-0.0071 (0.0056)	-0.0162* (0.0078)
Observations	30101	30101	30101
Adj. R-squared	0.229	0.201	0.142
FE / Cluster	Firm + Event-date / Event-date	Firm + Event-date / Event-date	Firm + Event-date / Event-date

The re-estimating yields a negative overseas-revenue coefficient across all windows, weakly significant at the 10% level in [-1,+1]. Control coefficients are broadly like the baseline, with

ROE turning negative and marginally significant over $[-5,+5]$. Adjusted R^2 and sample sizes are unchanged. Because clustering changes only the standard errors, the results shows the exposure effect is most visible in the $[-1,+1]$ window, but it fades in wider windows as common shocks and measurement limits make it harder to detect.

4.5. Endogeneity Consideration

The estimates are interpreted as associations rather than causal effects. The specification includes firm fixed effects to absorb time-invariant heterogeneity (e.g. business models, governance, persistent industry positioning), event-date dummies to absorb shocks common to all firms on each announcement day, and standard controls. Standard errors are clustered by firm in the baseline, with robustness to event-date clustering. These choices raise internal validity relative to simple OLS but do not fully eliminate three concerns.

1) Omitted time-varying shocks

Even after controlling for event-date dummies, there may be firm- or industry-shocks around the announcement that move both exposure and CARs $[1][5]$. For example, overseas demand news specific to certain industries, currency-sensitive or exchange rate-sensitive orders, supply-chain disruptions and contemporaneous overseas demand news, if such shocks are correlated with exposure but are not fully captured by our controls, β may be biased.

2) Limited within-firm variation in exposure

Exposure is observed at annual frequency, whereas CARs are measured over daily windows. With firm fixed effects, identification comes from changes in a firm's exposure over time. If exposure moves slowly, which is typical for revenue composition, there is little within-firm variation to exploit, which not only reduces statistical power but also makes the estimate sensitive to small measurement errors.

3) Event classification and anticipation

Event-date dummies remove average same day shocks, but investor anticipation or information leakage prior to the official timestamp may contaminate very short windows. The dissertation uses short symmetric windows to reduce this effect yet cannot eliminate it entirely.

4.6. Summary

Across event windows, the overseas-revenue ratio is negatively on announcement-window CARs, consistent with exposure-driven vulnerability. But the estimates are statistically imprecise, particularly beyond the immediate $[-1,+1]$ window. In the longer event windows, bigger firms tend to lose less. That may occur because size often comes with more lines of business, more suppliers and customers, and easier access to funding. These cushions make it harder for one policy shock to knock the firm off, so the price drop that follows a trade-war announcement is usually smaller for large firms than for small ones. Unlike firm size, high leverage can help only briefly. Right around the announcement, debt-heavy firms sometimes look safer than expected because lenders, major creditors, or related parties are seen as more likely to support them in a pinch, which works to soften the immediate hit. But this effect may fade quickly. Over a few days, investors focus back on the risks that come with large debt loads such as refinancing or interest costs, so the initial cushion does not last for long. To many people's surprise, strong profitability is not a shield by itself. A high ROE signals an efficient and well-run business, but it does not remove exposure to tariffs, export controls, or supply-chain frictions. Even if a firm is profitable, relying heavily on foreign revenue or imported parts can make it vulnerable to trade-policy shocks that hurt expected cash flows. However, tests using $ratio \times OFDI_dummy$ show no clear moderating effect at daily horizons.

The results suggest that broad policy shocks drive short-term pricing during the trade war, while firm-level internationalization factors play only a small and uncertain role. For portfolio risk management, this means focusing on total exposure to trade-policy news and diversifying

across highly exposed firms, rather than depending on cross-listing or OFDI status to reduce risk. Future research should use higher-frequency exposure data, such as shipment or invoice records, instead of annual shares. Pairing this with two-way clustered errors and industry-by-date fixed effects would give cleaner estimates of firm differences. Expanding the sample beyond the U.S.-China setting to include multiple countries would also help. A larger, global dataset with more firms that are both cross-listed and engaged in OFDI would increase statistical power and make patterns easier to detect.

5. Discussion

The empirical evidence reveals several important insights into how geopolitical shocks are transmitted through financial markets and how firm-level characteristics shape—or fail to shape—these reactions.

5.1. Dominance of Systemic Geopolitical Uncertainty

The strong negative CARs following escalation announcements and the modest, temporary gains after easing events highlight the asymmetric pricing of geopolitical risk. Investors react more strongly to worsening tensions than to positive signals, consistent with theories of loss aversion and uncertainty-driven valuation.

5.2. Limited Explanatory Power of Internationalization

Although theoretically firms with greater global exposure—via overseas revenue, cross-listings, or OFDI—should be more sensitive to trade-policy shocks, the empirical results indicate weak and statistically insignificant effects. Several mechanisms may account for this muted heterogeneity:

- 1) Correlation spikes during crises: During major geopolitical disruptions, cross-market correlations rise sharply, limiting the ability of diversification to buffer valuation impacts.
- 2) Offsetting channels of globalization: International operations increase exposure to foreign risk but also provide alternative markets and financing resources.
- 3) Investor behavior during uncertainty: Investors may treat all firms as homogeneously vulnerable, especially when macro signals dominate precise firm-level information.

Thus, internationalization behaves as a double-edged sword, whose opposing forces may effectively cancel out in short-term price dynamics.

5.3. Why Exposure Variables Lose Significance

The insignificant slope coefficients for overseas revenue and interaction terms suggest that systemic shocks dwarf cross-sectional variation. Several empirical factors reinforce this:

exposure is measured annually, while CARs reflect reactions over a few days; event-date fixed effects absorb market-wide movements, leaving only within-day cross-sectional variation; the number of cross-listed firms is small, reducing statistical power in identifying their differential responses.

The results thus align with literature emphasizing that during periods of elevated geopolitical risk, macro-level uncertainty dominates micro-level differentiation.

5.4. Implications for Investors and Firms

For investors, the findings indicate that: traditional firm-level screening is less effective during geopolitical crises; portfolio hedging should target macro geopolitical factors rather than firm fundamentals; cross-listed firms may serve as early indicators of global sentiment, even if their CAR differences are statistically muted.

For firms, the results underscore the need to: strengthen risk management for policy-driven shocks; maintain flexible supply-chain and market reallocation strategies; communicate clearly with investors to reduce information asymmetry during geopolitical turbulence.

Overall, the findings contribute to the growing recognition that geopolitical shocks represent a systemic risk class with pricing dynamics distinct from firm-specific risks.

6. Conclusion

This study investigates how Chinese A-share listed firms responded to major geopolitical shocks during the 2018–2020 U.S.–China trade war. Using a multi-event study framework combined with firm fixed-effects regressions, we provide new evidence on how escalation and easing announcements were priced in China's stock market and how internationalization influenced firms' short-term abnormal returns.

First, escalation events generated significantly negative cumulative abnormal returns, while easing announcements produced positive but short-lived reactions. This asymmetric pattern indicates that downward policy shocks have stronger and more persistent valuation effects than positive signals.

Second, internationalization captured through overseas revenue exposure, cross-listing status, and outward foreign direct investment exhibited negative but statistically weak associations with announcement-window returns. These results suggest that during periods of heightened geopolitical tension, systemic market uncertainty dominates firm-level characteristics, limiting the explanatory power of international exposure.

This study makes three contributions to literature:

1) Empirical evidence on asymmetric geopolitical risk pricing

We show that negative geopolitical shocks are priced more heavily and persistently, reinforcing theories of asymmetric investor responses under uncertainty.

2) Joint evaluation of multiple internationalization channels

By incorporating overseas revenue, cross-listing, and OFDI simultaneously, this study provides a more comprehensive assessment of global engagement than prior single-dimensional analyses.

3) Demonstration of systemic dominance over firm fundamentals

The findings highlight that during acute geopolitical conflicts, short-term stock market reactions are largely driven by macro-level shocks rather than micro-level exposure differences. For investors, the dominance of systemic uncertainty implies that: hedging geopolitical risk requires macro-oriented strategies; firm-level screening is less effective during large-scale conflicts; market reactions may not fully reflect fundamentals.

For corporate managers, the results underscore the importance of: strengthening risk management systems for global policy shocks; diversifying supply chains and markets to enhance resilience; communicating transparently with stakeholders during geopolitical events. For policymakers, the findings suggest that: clear and consistent policy communication is crucial for stabilizing expectations; reducing uncertainty may mitigate excessive market volatility; support tools for globally exposed firms can enhance resilience.

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