



Navigating Geopolitical Turmoil: American Stock Market Re- actions to Exiting Russia

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Abstract

I investigate the stock market reactions to 189 U.S. firms' announcements of their decisions to exit the Russian market following the escalation of the Russia-Ukraine conflict on February 24, 2022. I reveal robust and statistically significant negative stock market reactions to exit announcements, with a mean CAR of -0.78% during the three-day event window using the standard market model, but no significant differences in the timing of exit decisions. Additionally, I find that the primary customer base matters, as B2C firms experience larger negative CARs, especially over the extended eight-day event window, compared to B2B firms. My findings suggest that while firms' ethical actions may align with public and stakeholder expectations, such decisions are often penalized by the market, as investors prioritize short-term financial impacts, including immediate revenue losses and operational costs, over potential long-term reputational benefits. This highlights the complex considerations firms face when balancing ethical imperatives with financial performance, contributing to a deeper understanding of corporate decision-making under geopolitical strain.

Keywords: Russia-Ukraine Conflict, Corporate Ethics, Abnormal Returns, Stock Market Reactions, Geopolitical Risk Management, Corporate Exit Decision

Navegando pela Turbulência Geopolítica: Reações do Mercado de Ações Americano à Saída da Rússia

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Resumo

Eu investigo as reações do mercado acionário às declarações de 189 empresas norte-americanas sobre suas decisões de sair do mercado russo após o início do conflito entre Rússia e Ucrânia, em 24 de fevereiro de 2022. Revelo reações negativas robustas e estatisticamente significativas do mercado às declarações de saída, com um CAR médio de $-0,78\%$ durante a janela de evento de três dias, utilizando o modelo de mercado padrão, mas sem diferenças significativas em relação ao momento das decisões de saída. Além disso, descubro que a base principal de clientes é um fator relevante, pois empresas B2C apresentam CARs negativos maiores, especialmente na janela de evento estendida de oito dias, em comparação com empresas B2B. Meus resultados sugerem que, embora as ações éticas das empresas possam estar alinhadas com as expectativas do público e das partes interessadas, essas decisões são frequentemente penalizadas pelo mercado, já que os investidores priorizam impactos financeiros de curto prazo, como perdas imediatas de receita e custos operacionais, em detrimento de benefícios reputacionais de longo prazo. Isso destaca as considerações complexas que as empresas enfrentam ao equilibrar imperativos éticos e desempenho financeiro, contribuindo para uma compreensão mais profunda da tomada de decisão corporativa em contextos de tensão geopolítica.

Palavras-chave: Conflito Rússia-Ucrânia, Ética Corporativa, Retornos Anormais, Reações do Mercado de Ações, Gestão de Riscos Geopolíticos, Corporativa Decisão de Saída

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1. Introduction

On February 24, 2022, Russian forces invaded Ukraine, turning years of geopolitical tension into a full-scale war. In response, NATO countries and their allies implemented severe economic sanctions against Russia, targeting key financial, trade, and industrial sectors. These measures included freezing the Russian Central Bank's foreign reserves, excluding major Russian banks from the SWIFT payment system, and restricting exports of advanced technologies and critical resources. The scope and immediacy of these sanctions created widespread uncertainty, forcing governments, businesses, and financial markets to navigate an unprecedented geopolitical crisis.

For multinational companies with operations in Russia, the situation posed significant challenges. While governments did not explicitly mandate corporate withdrawal, public opinion and media scrutiny amplified the pressure on companies to take a stand. Organizations were expected to align with Western values by exiting the Russian market as a public condemnation of the invasion. For publicly listed firms, these decisions were not merely symbolic but also strategic, encompassing ethical considerations, reputational risks, and financial repercussions. Stakeholders - including investors, employees, and consumers - demanded that companies demonstrate their commitment to corporate social responsibility (CSR) and adherence to global governance norms. However, these decisions carried significant trade-offs. The cost of exiting Russia included lost revenue streams, operational disruptions, and potential shareholder discontent. At the same time, companies risked reputational damage and public backlash if they chose to remain, potentially undermining brand equity and stakeholder trust. This dynamic created a delicate balancing act, as firms grappled with conflicting priorities: upholding ethical standards versus safeguarding financial performance.

The implications of these exit decisions extended beyond individual firms, generating ripple effects in financial markets. Announcements of corporate withdrawals became pivotal events, sparking immediate investor reactions. For investors, these announcements signaled potential long-term consequences, ranging from lost market opportunities and operational inefficiencies to enhanced reputational value and alignment with Environmental, Social, and Governance (ESG) principles. The stock price reactions to such announcements reflected a broader tension between ethical decision-making and financial pragmatism in a rapidly evolving geopolitical context.

1.1. Corporate Reactions to the Russia-Ukraine War

Historically, the intersection of geopolitical conflicts and financial markets has been an area of substantial academic interest. Research shows that armed conflicts typically heighten investor risk aversion, leading to declines in equity valuations and increased market volatility. However, the role of corporate decision-making during such crises, particularly in the context of public scrutiny and global CSR standards, remains underexplored. The Russia-Ukraine conflict provides a unique lens to examine how markets interpret ethical corporate actions amidst heightened geopolitical tensions.

Geopolitical conflicts often create substantial economic and operational risks for businesses. Research shows that such conflicts increase stock market volatility (Smales, 2020) and reduce international capital flows (Feng et al., 2023). Firms operating in regions affected by conflict typically face disrupted supply chains, declining revenues, and reputational risks, prompting significant strategic adjustments.

At the onset of the Russia-Ukraine conflict, multinational firms operating in Russia faced three strategic choices:

1. **Continuing operations unchanged:** This approach maintained cashflows but carried risks such as reputational damage, supply chain disruptions, ESG rating downgrade, and compliance challenges related to sanctions. The devaluation of the Russian ruble further diminished revenue value and complicated currency exchanges.
2. **Adopt a wait-and-see approach:** Firms delaying a definitive decision often scale back operations or suspend activities temporarily, preserving the option to re-enter the market if conditions improve.
3. **Fully exit the market:** While this decision reduced reputational risks and aligned firms with global expectations of ethical conduct, it came at the cost of forfeiting Russian customer bases, severing supplier relationships, and losing access to a major economy. For large multinational corporations, market exits are difficult to reverse, potentially affecting shareholder value and long-term growth.

Multinational corporations with exposure to the Russian market faced intense scrutiny during this period, as high-profile analyses and advocacy efforts from organizations such as Yale (2022) and the Kyiv School of Economics (2022) brought significant attention to the reputa-

tional and operational risks of remaining in Russia. These campaigns placed substantial pressure on companies to align their actions with public expectations and broader ethical considerations. Nevertheless, corporate responses varied widely. Some firms, particularly non-Western entities, questioned the efficacy of sanctions and boycotts, highlighting concerns about the potential for unintended consequences and the uneven application of such measures (Woods, 2023; Braw, 2022, 2023). This divergence underscores the complexity of corporate decision-making during geopolitical crises, where firms must weigh ethical imperatives, financial consequences, and stakeholder expectations. Amid this heterogeneous landscape, U.S. firms emerged as particularly decisive and responsive, leading the exodus from the Russian market and setting benchmarks for global corporate ethical behavior. This swift and visible response not only underscored the influence of U.S. corporations in shaping global norms but also offered a valuable lens through which to study investor reactions to ethical decision-making. Their prominence provides a compelling rationale for focusing this study on U.S. firms and the market's reception of their actions during this period of geopolitical uncertainty. U.S. firms also stand out as an ideal subject for analysis due to several additional factors. The unparalleled size and liquidity of the U.S. stock market allow for precise measurement of investor sentiment and reactions to corporate decisions. Stock prices in such a robust market are highly sensitive to new information, making it possible to capture nuanced responses to exit announcements (Baker et al., 2022). Moreover, U.S. firms enjoy a level of global influence that amplifies the visibility of their actions. Their decisions are closely monitored not only by domestic investors but also by international stakeholders, leading to more pronounced and measurable stock market reactions to strategic moves such as exiting a foreign market (Balyuk and Fedyk, 2023). This heightened visibility ensures that the analysis captures the broader implications of ethical decision-making in a globalized context. In addition, the regulatory environment in the U.S. is relatively homogeneous compared to other regions, providing a controlled framework for studying market responses (Federle et al., 2022). This regulatory uniformity minimizes the confounding effects of cross-country differences in reporting standards, investor protections, and corporate governance practices, enabling a clearer focus on the impact of exit announcements themselves.

These combined factors - the scale and efficiency of the U.S. stock market, the global visibility of U.S. firms, and the consistency of their regulatory environment - create an optimal setting for investigating how ethical corporate actions influence market reactions. By focusing on U.S. firms, this study aims to provide insights into the broader dynamics of ethical decision-making

in a globally interconnected financial system, offering valuable implications for investors, policymakers, and corporate leaders navigating similar challenges in the future.

1.2. Literature Review and Research Hypotheses

I study how U.S. firms' decisions to exit the Russian market in response to the Ukraine-Russia war influenced stock market reactions. My study focuses on how shareholders interpret corporate withdrawal decisions during geopolitical crises and investigates the role of ethical decision-making in shaping market outcomes. By analyzing stock price reactions to these exit announcements, I provide new insights into the intersection of CSR, geopolitical risk management, and financial markets.

Researchers have consistently shown that armed conflicts significantly harm economic growth and equity markets. Foundational studies (Abadie & Gardeazabal, 2003; Rigobon & Sack, 2005) demonstrate that both conflicts and the threat of conflict reduce equity valuations. Schneider & Troeger (2006) build on this, revealing that geopolitical conflicts increase investor risk aversion, leading to stock market declines. The severity and type of conflict play a critical role, with more intense conflicts and interstate wars causing greater market disruptions than civil wars. Conflicts involving economically significant regions or major powers have broader implications for global equity markets. Recent studies also emphasize the long-term effects of geopolitical events.

The corporate response to conflicts highlights the growing importance of CSR and ESG considerations in business strategies. Zhang et al. (2022) and Umar et al. (2022) suggest that disengagement from conflict-associated markets can lead to reputational gains, improved ESG ratings, and reduced risk perceptions. However, investors may prioritize short-term financial performance over ethical alignment, creating a tension between reputational benefits and financial costs. The timing of corporate decisions during geopolitical crises is often considered a key factor influencing market reactions. Although existing literature on the timing of market exits remains limited, it is frequently hypothesized that faster, decisive actions may be viewed favorably by investors, as they convey agility and a commitment to strong governance.

Finally, the role of a firm's customer base in shaping market reactions remains underexplored. Sonnenfeld et al. (2022) propose that Business to Customer (B2C) firms, due to their stronger focus on public perception and brand reputation, are less vulnerable to reputational damage

than Business to Business (B2B) firms during withdrawal decisions. I empirically test this hypothesis in the context of the Russia-Ukraine conflict, uncovering new insights into how the primary customer base shapes investor sentiment during geopolitical crises. Based on this literature, I propose three hypotheses to examine how investors responded to U.S. firms' exit announcements during the Ukraine-Russia conflict:

H1: Ethical decisions yield positive abnormal returns.

Firms that announce the termination of Russian operations are likely to experience positive abnormal returns due to the ethical and reputational benefits associated with such decisions. Ethical actions enhance reputational value, align with ESG principles, and mitigate risks related to sanctions and public backlash. These decisions also signal strong commitments to stakeholder capitalism and global governance norms, which are increasingly valued by investors (Dinca et al., 2023; Russ, 2022). I suggest that the ethical and reputational benefits of exiting the Russian market outweigh the financial costs of such actions, creating a tension between long-term reputational advantages and short-term financial performance.

H2: Faster exits lead to higher abnormal returns.

Further, I test whether firms that promptly announce their exit from the Russian market are more likely to achieve greater positive abnormal returns. Swift decision-making signals decisiveness, organizational agility, and a strong commitment to CSR, which can enhance market confidence and bolster investor trust (Bloom, 2022; Parella, 2023).

H3: Customer base shapes exit impact.

Finally, I analyze whether the stock price impact of exiting Russia depends on a firm's customer base. Firms operating in B2C markets, where consumer perception and brand reputation play a significant role, are expected to benefit more from withdrawal decisions than B2B firms, where direct consumer scrutiny is lower (Sonnenfeld et al., 2022).

To test the hypotheses, I base my research on a list of multinational firms with Russian operations from the Kyiv School of Economics (KSE) Institute, which tracks 3,975 corporate decisions globally regarding their Russian exposure after the outbreak of the war. I exclusively examine the exit announcements of U.S. firms. Due to inconsistencies regarding the specific exit announcement dates in the KSE Institute list, I am using a hand-collected dataset of 189 U.S.-listed firms with verified exit announcement dates. The event study methodology commonly used in academic work (MacKinlay, 1997) forms the foundation of my analysis. To

analyze this dataset, I calculate CARs (cumulative abnormal returns) by implementing a standard market model and both the Fama and French 3 Factor Model and the Fama and French 5 Factor Model with an estimation period from January 1, 2021, to December 31, 2021. Further, I'm analyzing data across three different event windows. The primary three-day event window [-1, +1] captures the immediate market reaction, while the [-2, +2] and the [-2, +5] event windows test the robustness over extended periods. I retrieve stock data from DataStream, while I gather the factor returns and the market excess return from the Fama-French data library. A two-tailed t-test assesses statistical significance.

I first quantify the impact of U.S. firms' exit announcements on their underlying share prices by calculating CARs. The standard market model yields a CAR of -0.78% for the primary three-day event window [-1, +1]. The two multi-factor models and extended event windows confirm this negative market reaction, with CARs becoming increasingly negative for the longer event windows.

Secondly, I analyze whether firms that announced their exit more swiftly experienced more abnormal returns than firms that delayed their exit decision. Due to diverging results between the standard market model and the multi-factor models, I cannot draw a definitive conclusion that is robust across all three models under consideration.

Lastly, I group the firms in my dataset by their primary customer base to test the hypothesis proposed by Sonnenfeld et al. (2022), which suggests that B2C firms experience less reputational damage, as measured by their CAR, from exit decisions compared to B2B firms. However, I find that B2C firms experience larger negative CARs compared to B2B firms, particularly over the extended eight-day event window, with CARs of -1.67% for B2C firms and -0.84% for B2B firms in the market model.

I conclude that investors prioritize short-term financial impacts, such as immediate revenue losses and operational costs, over potential long-term reputational benefits when assessing firms' exit decisions during geopolitical crises.

1.3. Contribution and Significance

My work delivers insight into how financial markets evaluate ethical business decisions during international conflicts. By analyzing stock price reactions to U.S. firms' exit announcements from Russia, I highlight the economic incentives for corporate activism during geopolitical crises. Contrary to initial expectations, I find negative stock market reactions to exit announcements and offer strategic insights for corporate leaders, highlighting the differences in market returns between B2B and B2C firms. I bridge the gap between CSR, ESG, and financial performance in a geopolitical risk context, offering practical lessons for businesses and policymakers. From a practical perspective, this research helps corporate leaders navigate similar crises by demonstrating how investors value ethical decisions and swift actions. For policymakers, the findings could inform strategies to align corporate behavior with national security interests. Ultimately, my study deepens the understanding of market behavior during geopolitical crises and provides actionable insights for more informed corporate governance and foreign policy decisions.

The remainder of this thesis is organized as follows. Section 2, provides a detailed overview of the data utilized in my analysis, including its sources and key characteristics. Section 3 outlines the methodological framework employed to evaluate the stock market reactions to exit announcements. In Section 4, I present the empirical findings, accompanied by robustness checks to validate the results. Section 5 delves into a discussion of the findings, highlighting their implications while addressing the limitations of the study. Finally, Section 6 offers concluding remarks, summarizing the key contributions of this research and suggesting potential avenues for future study.

2. Data

This section provides an overview of the data sources, and the general compilation of the core dataset used in my thesis.

I construct a manual dataset of firms' exit announcements in several steps. First, I leverage the comprehensive database of the KSE Institute, which tracks the actions of over 3,975 multinational firms regarding their Russian operations as of September 30, 2024. The KSE Institute database is recognized for its comprehensiveness and regular updates.¹ The dataset initially categorizes corporate decisions into "Stay," "Leave," and "Exited." For this analysis, "Exited" and "Leave" are consolidated into a single "Exit" category, focusing on the initial withdrawal announcement rather than the completion of the exit process. After filtering the KSE Institute list for U.S. firms that exited Russia, 452 firms have been identified, out of which 247 are publicly traded. The KSE Institute database does not consistently include the precise date of each announcement and lacks verifiable data sources, which is essential for my event study analyses. Therefore, I hand-collect the individual announcement dates of each firm with verified sources, ensuring data integrity and reliability for my study. As a result, a core sample of 189 firms has been identified, which forms the foundation of my study.

Daily share price data for the core sample was obtained from Refinitiv Eikon. This refined dataset provides a robust foundation for examining market responses to corporate exit actions in the context of the Russia-Ukraine war. This approach aligns with recent academic studies in analyzing corporate responses to geopolitical events, as demonstrated by Evenett and Pisani (2023). This approach enables a timely assessment of corporate decision-making in response to the ongoing conflict, addressing the limitations of traditional databases that often publish information with considerable lag. To follow the event study methodology, I leverage on the data from the Fama-French data library.

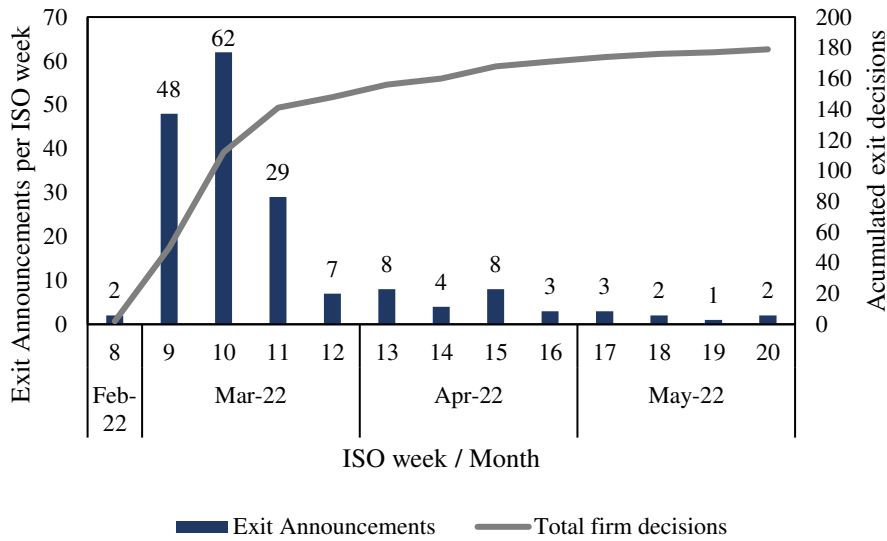
Finally, I merge the hand-collected dataset of exit announcements with daily stock price data from Refinitiv and incorporate the separate factor returns from the Fama-French 3-factor and

¹ The methodology for tracking multinational firms operating in Russia is detailed in Mylovanov et al. (2023). The full database is accessible under this link: <https://docs.google.com/spreadsheets/d/1EF1hBOYyvRdSn4U6CY2yomeHEhTqbMKS/edit?pli=1#gid=2139051396>. Onopriienko, Hrybanovskyi, and Shapoval (2023) also reference this database. Compared to the Yale School of Management database (Sonnenfeld et al., 2022), which included fewer firms as of September 30, 2024, the KSE Institute database is more comprehensive, containing detailed and verifiable firm-specific announcements. The overlap between the Yale and KSE Institute datasets exceeds 99%, as the KSE database partially incorporates data from Yale and the University of St. Gallen, making it the preferred source for this analysis.

5-factor models, using data from the Fama-French database to construct the market portfolio, in line with the event study methodology.

Figure 1 reports the distribution of firms' exit announcements over time. Exit announcements were primarily spread out in March 2022, peaked in the second week of March 2022, and tapered off by the end of that month. The month March alone accounted for more than 74% of exit announcements in the total sample of 189 U.S. firms.

Figure 1: Distribution of Exit Decisions.



This figure illustrates the distribution of firms' initial exit decisions regarding their Russia operations, beginning in ISO week 8 in 2022. The war commenced on February 24, 2024, with the first exit announcements published three days later, on February 27, 2024. The sample includes 179 publicly listed companies, as compiled by the KSE Institute as of September 30, 2024, with verified exit announcement dates. The excerpted time window from February 27 to May 31, 2024, captures over 97% of U.S. firms' exit announcements and effectively serves the purpose of visualization.

3. Methodology

I analyze the impact of U.S. firms' exit decisions from the Russian market on share price performance, driven by the escalation of the Russia-Ukraine conflict. To measure this impact, I calculate the CARs using the following formula:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{i,t}$$

with $t_1 < t_2$ and $t_1, t_2 \in (\text{Event Window})$.

Using the standard market model within the event study framework, the abnormal return (AR) for stock i at time t is determined by:²

$$(1)AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i * R_{m,t})$$

To ensure empirical robustness of my results, I not only consider the standard market model, but also the two multi-factor models by Fama and French (1993, 2016) where I incorporate additional factors such as size (SMB), value (HML), profitability (RMW), investment (CMA). I do that by first implementing the Fama-French 3-Factor Model, where the AR of stock i at time t is calculated by:

$$(2)AR_{i,t} = R_{i,t} - (\alpha_i + \beta_M * R_{m,t} + \beta_{SMB} * SMB_t + \beta_{HML} * HML_t)$$

Additionally, the Fama-French 5-Factor Model extends the 3-factor model by adding two additional factors:

$$(3)AR_{i,t} = R_{i,t} - (\alpha_i + \beta_M * R_{m,t} + \beta_{SMB} * SMB_t + \beta_{HML} * HML_t + \beta_{RMW} * RMW_t + \beta_{CMA} * CMA_t)$$

$R_{i,t}$ denotes the stock return for firm i on day t . $R_{m,t}$ represents the market portfolio's return at time t and is sourced from the Fama-French data library. Specifically, $R_{m,t}$ is the excess return on the market, calculated as the value-weighted return of all Center for Research in Security Prices (CRSP) stocks incorporated in the U.S. and listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), or National Association of Securities Dealers Automated Quotations (Nasdaq), minus the risk-free rate. The parameter α_i is the stock-specific intercept and β_i denotes the individual factor loadings (coefficients), both of which are estimated based on linear regression data from the estimation period covering January 1, 2021, to December 31, 2021.³ To assess the statistical significance of the market reactions, I calculate the CAR for each firm i by aggregating the abnormal returns over the specified event window. To test the results for statistical significance, I use a two-tailed t-test with significance levels at

² This approach is widely adopted in studies exploring the effects of military conflicts on stock returns and corporate decision-making (e.g., Boubaker et al., 2022, Wiles, Morgan, & Rego, 2012; Giammarino et al., 2004).

³ This estimation period allows the beta for each firm to remain constant throughout the analysis, isolating its calculation from the beginning of the war or any related subsequent events in 2022. Kiesel and Kolaric, 2023, have also used this approach.

10%, 5%, and 1%. This approach follows the methodology outlined by MacKinlay (1997) and Kothari and Warner (2007), with the t-statistic calculated as:

$$t_{stat} = \frac{CAR_{i,t}}{\sqrt{N * \sigma^2_{AR_{i,t}}}}$$

By following this framework, I ensure a robust assessment of the market's response to the events in question by employing the standard market model, along with the Fama-French 3-factor and 5-factor models, to account for both the magnitude and consistency of abnormal returns across the sample.

To mitigate the impact of extreme outliers and ensure the robustness of the results, the returns are winsorized at the 1st and 99th percentiles. This approach replaces values below the 1st percentile and above the 99th percentile with the respective threshold values, reducing the influence of extreme observations reliability of the findings of the dataset.

4. Results

This section provides the results for the abnormal returns and analyzes the three hypotheses defined.

4.1. Share Price Reactions Around the Exit Announcements of U.S. Firms

First, I analyze the firms' share price reactions to the exit announcements. While prior research highlights negative global stock market responses at the escalation of the Russia-Ukraine war around February, 24, 2022 (Kiesel and Kolaric, 2023), ethical decisions such as terminating Russian operations have the potential to offset these trends. Enhancing reputational value, aligning with ESG principles, and mitigating risks may lead to positive abnormal returns - a hypothesis I now evaluate through statistical analysis.

Table 1: Cumulative abnormal returns (CARs) around the exit announcements.

Panel A. Market Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
Communication Services	-0.70%**	-0.77%**	0.59%**	16
Consumer Discretionary	-0.42%	-0.09%	-1.04%***	34
Consumer Staples	-1.47%***	-0.82%***	-1.54%***	10
Energy	-0.23%	-0.16%	-1.87%***	5
Financials	-1.06%***	-0.73%***	-0.36%	20
Health Care	-1.10%***	0.27%**	-0.49%***	9
Industrials	-0.70%***	-0.68%***	-1.73%***	38
Information Technology	-0.84%***	-0.20%	-0.48%	43
Materials	-0.03%	0.54%***	0.04%	10
Real Estate	-3.62%***	-3.32%***	-4.66%***	4
Total	-0.78%***	-0.37%*	-0.89%***	189
Panel B. Fama and French 3 Factor Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
Communication Services	-0.57%**	-0.91%***	0.03%	16
Consumer Discretionary	-0.44%	-0.71%**	-1.23%***	34
Consumer Staples	-1.13%***	-1.18%***	-1.28%***	10
Energy	-0.02%	-0.15%	-1.75%***	5
Financials	-0.78%***	-0.87%***	-0.45%*	20
Health Care	-0.88%***	-0.28%*	-0.28%	9
Industrials	-0.47%**	-1.51%***	-2.07%***	38
Information Technology	-0.48%*	-0.46%	-0.61%*	43
Materials	0.12%	0.01%	0.09%	10
Real Estate	-4.35%***	-3.88%***	-3.51%***	4
Total	-0.60%***	-0.87%***	-1.01%***	189
Panel C. Fama and French 5 Factor Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
Communication Services	-1.57%***	-0.80%**	0.18%*	16
Consumer Discretionary	-0.38%	-0.73%**	-1.09%***	34
Consumer Staples	-1.27%***	-0.82%***	-0.96%***	10
Energy	0.41%**	-0.06%*	-1.82%***	5
Financials	-1.09%***	-1.18%***	-0.47%	20
Health Care	-0.71%***	0.82%***	1.32%***	9
Industrials	-0.70%***	-1.30%***	-2.27%***	38
Information Technology	-0.40%*	-0.36%*	-0.05%	43
Materials	0.24%	0.17%	0.43%	10
Real Estate	-2.15%***	-3.78%***	-5.38%***	4
Total	-0.67%***	-0.75%***	-0.83%**	189

This table presents summarized event study results for 189 U.S. firms announcing their exit from the Russian market. The classification of industries in this study is based on the Global Industry Classification Standard (GICS) methodology, a widely recognized framework developed by MSCI and S&P Dow Jones Indices. Cumulative abnormal returns (CARs) are calculated using a standard market model and both the Fama and French 3 Factor Model and the Fama and French 5 Factor Model using an estimation window between January 1, 2021, and December 31, 2021. I retrieve stock data from DataStream, while I gather the factor returns and the market excess return from the Fama and French data library. The table reports winsorized mean CARs for three different event windows surrounding the announcement date (day 0). Statistical significance is assessed using a two-tailed t-test for the Mean CAR. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 1 provides insight into whether the ethical decisions of U.S. firms to exit the Russian market due to the Russian escalation of the conflict yields positive returns. To evaluate my first

hypothesis: Ethical decisions yield positive returns, which posits that announcing the termination of Russian operations is associated with positive abnormal returns, I conduct an event study analysis on 189 U.S. publicly listed firms. The CARs were computed for three different event windows surrounding the announcement date (day 0) using a standard market model as well as the Fama-French 3-factor and 5-factor models with an estimation period spanning January 1, 2021, to December 31, 2021.

The primary three-day event window, [-1, +1], captures the immediate market reaction, while the additional windows, [-2, +2] and [-2, +5], serve to assess the robustness of the results over extended periods. These windows were chosen to account for potential information leakage prior to announcements and delayed market reactions after announcements. I chose the [-1, +1] event window as the primary focus for analysis because it encompasses the trading day before, the day of, and the day after the exit announcement. This window is widely regarded in the event study literature as the most effective for capturing the immediate market response to new information. Given that exit announcements are significant and time-sensitive events, the market is expected to react quickly, reflecting investors' updated expectations about firms' future performance. By focusing on this narrow window, I minimize the potential confounding effects of unrelated market movements.

Table 1 presents the mean CARs for three different event windows, along with their respective tests for statistical significance. The analysis of the full sample of 189 U.S. firms reveals consistent and robust results across the three models, offering a comprehensive understanding of the market's reaction to the exit announcements. For the three-day event window [-1, +1], the mean CAR is -0.78% under the standard market model. The two multi-factor models confirm this negative market reaction, with mean CARs of -0.60% for the Fama-French 3-factor model and -0.67% for the Fama-French 5-factor model. All three CARs are statistically significant at the 1% level, underscoring the reliability of these findings.

The results from the two extended event windows further support the conclusions drawn from the three-day event window. Notably, as the event window lengthens, the observed CARs become increasingly negative, indicating a prolonged adverse market response to the announcements.

Among the industries analyzed, the Consumer Staples industry stands out as one of the most affected, with highly negative and statistically significant CARs. Firms in this sector experienced a mean CAR of -1.47% over the primary three-day event window in the standard market

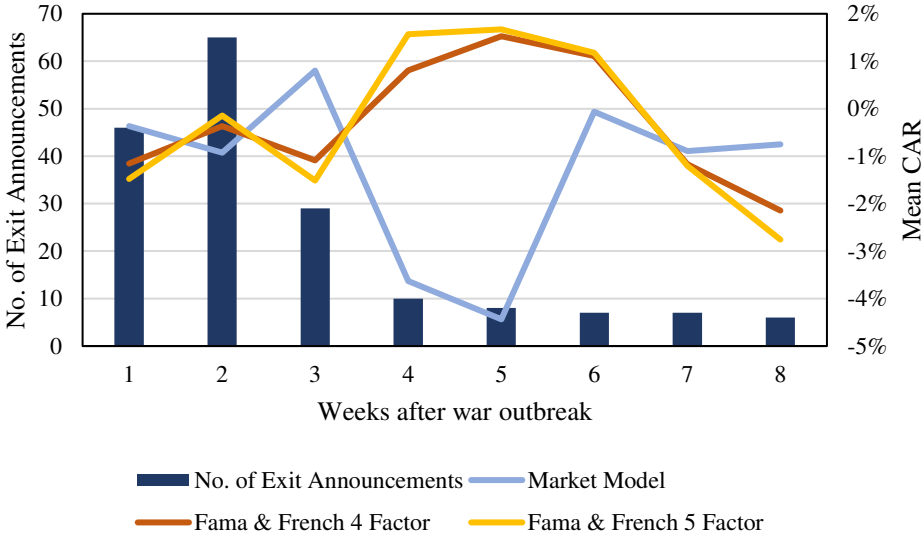
model, significant at the 1% level. This trend persists across the longer event windows and is consistent across the two multi-factor models. These results suggest that investors penalized firms in the Consumer Staples industry more severely, likely due to their reliance on long-term Russian market operations or perceived challenges in mitigating lost revenue.

The results across all three event windows do not support the first hypothesis, which proposed positive abnormal returns following ethical decisions to exit Russian operations. Instead, the findings reveal predominantly negative and statistically significant abnormal returns, which become increasingly negative as the event window lengthens, indicating a prolonged adverse market response to the announcements. This suggests that while these withdrawal decisions may align with ethical expectations and ESG principles, investors penalized firms due to anticipated financial consequences such as revenue losses, supply chain disruptions, and increased uncertainty. Sectoral differences also emerge, with significantly stronger negative reactions especially in the Consumer Staples industry, likely reflecting this industry's higher dependence on the Russian market and greater difficulty in mitigating losses. Overall, the findings underscore the complexity of investor responses to ethical decision-making, where short-term market penalties often outweigh potential long-term reputational and CSR benefits.

4.2. The Role of Swift Exit Decisions on Abnormal Returns

Building on the initial analysis of how firms' announcements to exit the Russian market impacted stock prices, the next step of this study focuses on the timing of these announcements. The pace at which firms acted in response to the Russia-Ukraine war introduces an important dimension to understanding investor reactions. Specifically, this section investigates whether firms that announced their exits more swiftly after the onset of the conflict experienced significantly different abnormal returns than those that delayed their decisions. Speedy exits may signal decisiveness, agility, and stronger commitments to CSR, which could enhance investor confidence and drive positive market responses. Conversely, delays might raise concerns about indecision or perceived misalignment with ethical or geopolitical expectations. With this subsection I aim to provide deeper insights into the role of timing in shaping market reactions to ethical decision-making during geopolitical crises.

Figure 2: Cumulative abnormal returns (CARs) Post-War Outbreak.



This figure summarizes the event study results for 178 U.S. firms that announced their exit from the Russian market, representing 94% of the initial sample and refined to better align with this hypothesis. Cumulative abnormal returns (CARs) are calculated for the primary three-day event window [-1; +1] using a standard market model and both the Fama and French 3 Factor Model and the Fama and French 5 Factor Model with an estimation period from January 1, 2021, to December 31, 2021. I retrieve stock data from DataStream, while I gather the factor returns and the market excess return from the Fama and French data library. The figure reports winsorized mean CARs for three different event windows surrounding the announcement date (day 0). Statistical significance is assessed using two-tailed t-tests for the Mean CAR, with *, **, and *** indicating significance at the 10%, 5%, and 1% levels, respectively.

Figure 2 illustrates the relationship between the timing of exit announcements and CARs, revealing how the pace of firms’ responses to the Russia-Ukraine war influenced market reactions. The data focuses on the eight weeks following the war’s outbreak on February 24, 2022, presenting both the mean CARs and the number of exit announcements. This provides a comprehensive understanding of how investors reacted to these announcements based on the timing of the exit announcement following the outbreak of the war. I put the focus exclusively on the three-day event window [-1; +1] for the three models, because it captures the immediate market reaction to the timing of exit announcements, minimizing the potential influence of confounding factors that could affect the extended event windows.

The first three weeks following the outbreak of the war provide the most reliable insights into the market's reaction, as sample sizes decrease substantially from week four onward, limiting the robustness of results in later weeks. In week three, the standard market model begins to show a divergence, delivering the highest CARs within the model, contrary to the consistently negative CARs observed in the first two weeks. In contrast, the two multi-factor models - the

Fama-French 3-Factor and 5-Factor models - continue to produce significant negative CARs in week three, offsetting the trend suggested by the standard market model.

Weeks four and five exhibit a notable shift in patterns. The standard market model delivers highly negative CARs, indicating that firms delaying their announcements faced substantial market penalties. Meanwhile, the two multi-factor models show strongly positive CARs during these weeks, suggesting a divergence in how these models capture investor sentiment. However, the reliability of these observations is limited due to the small sample sizes in weeks four and five, which necessitate caution in interpretation.

Over the eight-week period, the two multi-factor models demonstrate a relatively consistent correlation, particularly in highlighting week two as the most favorable period for firms to exit Russia during the first three weeks under consideration. Additionally, the positive CARs observed in weeks four, five, and six suggest a potential recovery in investor sentiment for firms that announced their exits during this time. This finding indicates that, despite initial market penalties, there may have been a favorable window for U.S. firms to announce their exits in the weeks following the war's outbreak. Nevertheless, the variability in results across models and the shrinking sample sizes in later weeks underscore the importance of interpreting these trends with caution.

The timing of exit announcements plays a critical role in shaping investor perceptions during periods of geopolitical crises. Firms that announce their exits swiftly after a major event, such as the outbreak of a conflict, may be perceived as decisive and aligned with ethical and global governance expectations. Such early actions can signal agility and a proactive approach, potentially reassuring investors and minimizing reputational risks. Prompt exits demonstrate a firm's ability to adapt quickly to evolving circumstances, which may resonate positively with stakeholders and reduce uncertainty in volatile environments.

In contrast, firms that delay their exit announcements risk being interpreted as indecisive or unresponsive to geopolitical or ethical imperatives. Delayed actions may amplify reputational risks, especially if the delay is viewed as prioritizing short-term business interests over long-term reputational considerations. However, for some firms, taking additional time before exiting might reflect a more deliberate and strategic decision-making process, allowing them to navigate operational complexities and minimize financial disruptions. This nuanced perspective

suggests that while earlier exits may align more closely with investor expectations, the context of the firm's decision-making process should also be considered.

Furthermore, the divergence in results between the standard market model and the multi-factor models complicates the ability to draw definitive conclusions. The multi-factor models provide additional dimensions by accounting for firm and industry-specific characteristics, which leads to results that differ from those observed under the standard market model. This inconsistency reduces the robustness of the findings in this section and highlights the challenges of attributing market reactions solely to the timing of exit announcements. Overall, while the timing of exit announcements remains a critical strategic consideration, the mixed results suggest caution in drawing firm conclusions about the market's response to these decisions.

4.3. The Impact of the Primary Customer Base of Individual Firms

Understanding the role of a firm's customer base is crucial in assessing the stock market impact of exiting Russia. Firms operating in B2C markets often face heightened consumer scrutiny, as public perception and brand reputation significantly influence their success. In contrast, B2B firms typically operate further from direct consumer visibility, which may reduce the reputational pressure associated with such decisions. This distinction raises the question of whether the nature of a firm's customer base shapes the stock price reaction to exit announcements, making it a critical aspect to investigate.

The GICS methodology categorizes firms into sectors and industries based on their primary business activities and revenue sources, providing a structured and consistent approach for industry classification. This framework enables clear distinctions between industries primarily serving end consumers (e.g., Consumer Discretionary, Consumer Staples, Communication Services) and those focusing on business clients (e.g., Industrials, Information Technology, Financials). By adopting the GICS methodology, this study ensures a systematic and credible classification of firms into B2B, B2C, or Hybrid customer bases.⁴

Due to the insignificant number of hybrid firms in my sample dataset, I have excluded three hybrid firms as it's not entirely clear whether they are B2B or B2C, which resulted in a sample size of 183 firms.

⁴ Further information on the methodology of the GICS framework can be accessed under: <https://www.msci.com/index/methodology/latest/GICS>.

Table 2: Cumulative abnormal returns (CARs) around the exit announcements grouped by primary customer base.

Panel A. Market Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
B2C	-0.86%***	-0.70%	-1.67%***	75
B2B	-0.63%***	-1.29%**	-0.84%***	108
Panel B. Fama and French 3 Factor Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
B2C	-0.45%**	-1.47%***	-1.42%***	75
B2B	-0.60%***	-0.95%***	-0.97%***	108
Panel C. Fama and French 5 Factor Model				
Industry	Mean CAR [-1;+1]	Mean CAR [-2;+2]	Mean CAR [-2;+5]	N
B2C	-0.91%**	-0.76%***	-0.85%***	75
B2B	-0.40%***	-0.71%**	-0.82%**	108

This table presents summarized event study results for 183 U.S. firms announcing their exit from the Russian market grouped after their primary customer base. Cumulative abnormal returns (CARs) are calculated using a standard market model and both the Fama and French 3 Factor Model and the Fama and French 5 Factor Model using an estimation window between January 1, 2021, and December 31, 2021. I retrieve stock data from DataStream, while I gather the factor returns and the market excess return from the Fama and French data library. The table reports winsorized mean CARs for three different event windows surrounding the announcement date (day 0). Statistical significance is assessed using a two-tailed t-test for the Mean CAR. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

The results presented in Table 2 provide evidence for my last hypothesis. I propose that the stock price impact of exiting Russia depends on a firm's primary customer base. Specifically, firms operating in B2C markets, where consumer perception and brand reputation play a significant role, are expected to experience more favorable investor reactions compared to B2B firms, where direct consumer scrutiny is lower (Sonnenfeld et al., 2022).

Contrary to Sonnenfeld et al., 2022, the findings reveal that for almost all models and event windows, B2C firms faced larger negative stock price reactions compared to B2B firms following their exit announcements. However, the primary three-day event window is only robust across the market model and the Fama-French 5-factor model.

The eight-day event window [-2; +5], provides robust results that B2C firms experienced consistently more negative CARs across the three different models with -1.67% for B2C firms and -0.84% for B2B firms in the market model, which are both statistically significant and notably differ from each other.

For B2B firms, exit decisions are likely interpreted by investors as operationally or financially motivated, minimizing the reputational penalties that B2C firms face when operating under heightened consumer visibility. These results challenge the expectation that B2C firms would benefit more from exit decisions due to reputational gains. Instead, the findings highlight that investors place greater weight on the short-term financial consequences of withdrawal decisions, even for firms in consumer-facing industries. While B2C firms are more susceptible to

public scrutiny and reputational pressures, these factors do not appear sufficient to offset investor concerns about immediate financial losses and additional costs of closing operations in Russia. The results confirm that a firm's primary customer base significantly shapes the stock price impact of exiting Russia. However, in contrast to my hypothesis, B2C firms did not experience more favorable investor responses. Instead, their stronger negative abnormal returns relative to B2B firms underscore the complexities of balancing ethical decision-making with investor expectations during geopolitical crises.

The larger negative stock price returns for B2C firms following their exit announcements from Russia can be attributed to several interconnected factors. First, revenue loss played a key role, as Russia represents a significant market for many B2C industries such as consumer staples or consumer discretionary. Exiting this market entails immediate financial setbacks, particularly for firms with strong brand visibility or market share. Second, B2C firms often face high fixed costs and operational disruptions, including write-offs, closure expenses, and adjustments to supply chains. These costs are perceived by investors as short-term financial burdens with uncertain recovery timelines. Another critical factor is reputational risk, which is more pronounced for B2C firms due to their direct visibility to consumers. While exiting Russia may align with ethical expectations, the financial penalties of withdrawal - such as lost revenues - appear to outweigh any reputational gains in the eyes of investors. Additionally, B2C firms are more exposed to consumer sensitivity to geopolitical shocks, particularly in emerging markets like Russia, where demand can be highly volatile during crises. Rising inflation, disrupted supply chains, and shifting consumer sentiment likely exacerbated concerns about future profitability. Lastly, investors' focus on short-term financial performance amplifies the negative reaction. Unlike B2B firms, where operational risks are often more diffused, B2C firms' profitability is directly tied to consumer spending, making the immediate financial impact of withdrawal more tangible and visible. Furthermore, a withdrawal from Russia may signal broader operational risks in navigating other politically sensitive markets, raising investor concerns about global stability.

In summary, the larger negative returns for B2C firms compared to B2B firms stem from a combination of immediate revenue losses, substantial operational costs, and heightened sensitivity to short-term financial performance. Although these firms face significant reputational pressures, the financial consequences of exiting Russia appear to have been prioritized by investors over potential long-term reputational benefits.

5. Limitations and Discussion

While this study offers valuable insights into the stock market reactions to U.S. firms' exit announcements from Russia during the Russia-Ukraine conflict, several limitations should be acknowledged to provide a balanced perspective on the findings.

A key limitation lies in the lack of detailed, firm-level data regarding the scope and scale of operations in Russia. Granular information, such as revenue share, asset exposure, or workforce dependence, could provide a more nuanced understanding of the factors driving firms' decisions to exit. For example, a firm with significant revenue dependence on the Russian market might face stronger financial disincentives to withdraw, while another with minimal exposure may find the decision less consequential. Such data would also allow for a clearer examination of whether firms prioritized reputational considerations over financial impacts, particularly the loss of future revenues. However, U.S.-listed firms are not required to disclose country-specific financial data, limiting the ability to assess the financial materiality of these withdrawals. Without such data, it remains unclear how significant the termination of operations in a major economy like Russia truly is, especially given the uncertainty surrounding the possibility of re-entry in the future.

I place significant emphasis on the ethical and reputational dimensions of corporate withdrawal decisions while placing less focus on the operational and financial complexities firms face during such exits. Exiting a foreign market under geopolitical pressure often involves substantial costs, including asset write-offs, supply chain disruptions, and legal hurdles. Future research incorporating these dimensions could offer a more holistic understanding of the trade-offs firms must consider when making exit decisions. Additionally, while ethical and reputational considerations are critical, they represent only one aspect of a broader decision-making process that also includes financial performance, shareholder expectations, regulatory compliance, and geopolitical risks. Recognizing this complexity can provide greater clarity on the variation in market responses across firms and industries.

The exclusive focus on U.S.-listed firms represents another limitation of my study, as it restricts the generalizability of the findings to other regions. Companies headquartered in Europe, Asia, or emerging markets may face different institutional environments, regulatory pressures, and public perceptions, leading to varying investor reactions. For instance, European firms, given their geographical proximity to the conflict, might experience heightened scrutiny compared to

their U.S. counterparts, while firms in emerging markets may encounter more lenient expectations. A comparative analysis of corporate behavior and market responses across regions could illuminate the influence of local factors and enhance the generalizability of the findings.

Furthermore, I also primarily examine short-term abnormal returns through event study methodology, capturing immediate investor sentiment but not addressing long-term financial and reputational consequences. While initial market responses provide useful insights, they may not reflect the enduring impact of exit decisions on firms' performance, brand equity, and stakeholder relationships. Longer observation periods could explore whether initial penalties persist, diminish, or reverse over time, offering a more comprehensive understanding of the sustainability of ethical decision-making. For example, ethical actions that initially lead to negative market reactions may ultimately strengthen firms' reputations and long-term shareholder value. Another aspect not addressed in this study is the potential spillover effects of corporate withdrawals on firms' operations in other markets. Companies that exit Russia may face heightened scrutiny or reputational consequences in regions with similar geopolitical risks or in markets where the Russian government maintains economic influence. Such effects could shape firms' broader global strategies and investor perceptions, adding another layer of complexity to the decision-making process. Finally, the focus on ethical decision-making and its financial implications could be enriched by considering the role of cultural and societal expectations in shaping both corporate actions and investor responses. Public and investor perceptions of corporate responsibility may differ significantly across countries and industries, influencing the extent to which ethical decisions are rewarded or penalized. Future studies could examine how cultural differences and stakeholder expectations interact with financial metrics to shape market reactions during geopolitical crises.

By acknowledging these limitations, I lay the groundwork for future research that addresses these gaps. Deeper analyses of firm-level financial data, long-term impacts, regional variability, spillover effects, and cultural factors will provide a richer understanding of how firms balance ethical imperatives with financial performance in times of geopolitical uncertainty. Such research will offer valuable guidance to corporate leaders, investors, and policymakers navigating the complex intersection of ethics, business strategy, and global crises.

6. Conclusion

This study provides valuable insights into the complex interplay between corporate ethics, financial performance, and geopolitical risk management in the context of the Russia-Ukraine conflict. By analyzing the stock market reactions to 189 U.S. firms' exit announcements from the Russian market, the findings challenge expectations regarding the financial benefits of ethical decision-making. Instead of observing positive abnormal returns, the results reveal predominantly negative, robust and statistically significant stock market reactions across multiple event windows, with a mean CAR of -0.78% during the three-day window surrounding the announcements. This suggests that investors largely focus on the anticipated financial consequences of withdrawal, such as revenue losses, operational disruptions, and increased uncertainty, rather than rewarding firms for aligning with ethical or ESG principles.

Analyzing the timing of the exit announcements during geopolitical crises highlights a critical role in my work. While I suggest that earlier announcements may align with investor expectations by signaling decisiveness and agility, the mixed findings across the standard market model and the multi-factor models complicate the ability to draw definitive conclusions. The divergence in results underscores the challenges of attributing market reactions solely to timing and emphasizes the importance of considering firm-specific and industry characteristics. Overall, the findings point to the nuanced nature of investor sentiment, where both the immediacy of actions and the broader strategic context influence market outcomes.

Further, I demonstrate that a firm's primary customer base plays a significant role in shaping investor responses to exit announcements from Russia. Contrary to Sonnenfeld et al. (2022), I reveal that B2C firms generally faced more pronounced negative stock price reactions than B2B firms following their exit announcements. This disparity is particularly evident in the extended eight-day event window [-2; +5], which provides robust evidence of consistently more negative CARs for B2C firms across the three models analyzed. For instance, under the market model, B2C firms recorded a CAR of -1.67%, compared to -0.84% for B2B firms, highlighting a notable divergence in market reactions. While B2C firms were expected to benefit from reputational gains due to their high consumer visibility, investors appeared more focused on the immediate financial consequences of their decisions. These include revenue losses, high operational costs, and market disruptions, which are particularly acute in consumer-facing industries. In contrast, B2B firms experienced less severe market penalties, likely because their decisions were perceived as driven by operational or financial considerations rather than reputational factors. The relative insulation of B2B firms from direct consumer scrutiny may have mitigated

investor pessimism toward their announcements. My findings highlight the heightened vulnerability of B2C firms to investor penalties during geopolitical crises, as financial risks and operational challenges often outweigh potential long-term reputational benefits. This underscores the complexities firms face in balancing ethical decision-making with financial performance during periods of significant uncertainty.

Collectively, I contribute to the understanding of corporate decision-making under geopolitical strain, offering important implications for corporate leaders and policymakers. For corporate leaders, my results highlight the heightened vulnerability of B2C firms to negative market reactions during crises. For policymakers, the research highlights the financial penalties firms may face when withdrawing from hostile markets, underscoring the importance of creating supportive environments that align corporate actions with broader geopolitical and ethical objectives.

While this study advances the literature on CSR, ESG considerations, and financial performance during geopolitical crises, it also underscores the complexity of investor responses to ethical decision-making. The findings reveal that market reactions to ethical stances are far from straightforward, shaped by a confluence of reputational, financial, and operational factors. In navigating such crises, firms must balance short-term financial risks with long-term strategic and ethical considerations. This study provides a foundation for future research to explore these dynamics in greater depth and offers actionable insights for managing the increasingly complex intersection of ethics, finance, and geopolitical risk in today's global landscape.

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