



UNIVERSIDADE CATÓLICA PORTUGUESA

To Leave, or Not to Leave?

The Effects of the Russian Corporate Exodus on
Investor's Returns

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Católica Porto Business School

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The Effects of the Russian Corporate Exodus on Investor's Returns

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Portuguesa in order to obtain the master's degree in Finance

by

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Abstract

This dissertation explores the effects of the Russian-Ukrainian War on stock returns, with the goal of determining if leaving the Russian market destroyed shareholder value for a diverse range of companies. This exercise demonstrates that companies that suspended operations in Russia following the war, although losing turnover, obtained statistically indifferent stock market returns for their investors in the short and medium terms. To reach this conclusion, the method employed was a Fama-French 3 Factor model with daily observations ranging from the start of the month of the invasion 01/02/2022 to 31/01/2023. These results imply that, despite leaving companies abandoning a sizable market and abdicating from its potential revenue, the move did not destroy value for their shareholders. This fact clearly demonstrates the perception of value by the market in the adoption of social and moral anti-war principles. The dissertation differentiates itself as being, to our knowledge, the first exploration of this conflict over a medium term from a governance perspective, and reveals interesting results to managers, investors and policymakers alike.

Keywords: Russia, Ukraine, War, Governance, Corporate Decisions, Stock Market Returns

Word Count: 7,180

Resumo

Esta dissertação explora os efeitos da Guerra Rússia-Ucrânia no retorno das ações, com o objectivo de determinar se a saída do mercado russo destruiu o valor acionista para uma série diversificada de empresas. Este exercício demonstra que as empresas que suspenderam as operações na Rússia após a guerra, apesar da perda de volume de negócios, obtiveram retornos estatisticamente indiferentes no mercado bolsista para os seus investidores a curto e médio prazo. Para chegar a esta conclusão, a metodologia utilizada foi um modelo Fama-French 3 Factor com observações diárias desde o início do mês da invasão 01/02/2022 até 31/01/2023. Estes resultados indicam que, apesar de as empresas abandonarem um mercado de grande dimensão e abdicarem das suas receitas potenciais, a mudança não destruiu valor para os seus acionistas. Este facto demonstra claramente que o mercado percebe valor na adoção de princípios sociais e morais anti-guerra pelas empresas. A dissertação diferencia-se, tanto quanto é do nosso conhecimento, como a primeira exploração deste conflito a médio prazo, numa perspectiva de governação, que revela resultados interessantes tanto para gestores, investidores como para governantes.

Palavras-chaves: Rússia, Ucrânia, Guerra, Governação, Decisões Corporativas, Retornos da Bolsa

Número de Palavras: 7.180

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Chapter 1 - Introduction

On February 24, 2022, Russia began a full-scale military invasion of Ukraine, which resulted in civilian deaths and injuries, as well as damage to civilian structures such as hospitals, schools, and residences. Reportedly, during the invasion there have been indiscriminate attacks against civilians, some of which may be considered war crimes (Human Rights Watch, 2022). This sparked endless protests worldwide denouncing the actions of the Russian leadership and multinational corporations supporting them.

In addition to the catastrophic physical damage, the Russia-Ukraine War also had a severe impact on a range of economic factors worldwide. Russia and Ukraine combined are two key global suppliers of energy and food, as they make up over 29% of wheat exports, as well as 75% of sunflower oil exports, according to the Observatory of Economic Complexity (2022). Consequently, the war had direct influence over high inflation, limited growth, and supply chain disruptions caused by shortages and rising costs of raw materials, commodities, energy, and transportation.

The corporate world did not take long to react to this action, although in different ways. One particular example of differing corporate strategy in response to the turmoil can be seen in the fast food industry. McDonald's CEO Chris Kempczinski announced that after 30 years of operation in Russia, the Arches would be shutting down more than 800 of their restaurants in the region (Valinsky, 2022). In an open letter addressing the public, McDonald's (2022) cites that the war in Ukraine caused an "unpredictable operating environment" that made business in Russia no longer viable nor consistent with the corporation's values.

On the other hand, Restaurants Brand International (RBI), the fifth largest operator in the fast food sector, which owns Burger King, was unable to halt support for Russian franchise owners despite pouring outside pressure. RBI's CEO David Shear also addressed the concerns of many in an open letter directed at the company's employees, showing interest in shutting down the company's operations in Russia; however, affirming that RBI was unable to do so due to contractual obligations that restricted the multinational corporation from unilaterally changing or outright overturning the agreement with its partners in the Russian market (Shear, 2022).

It can be argued that firms' decision to halt activity in Russia was almost entirely socially conscious; which leads on the concept of Environmental, Social and Governance (ESG). ESG was introduced in a Freshfields Bruckhaus Deringer (2005) report, as a framework to integrate and incentivise social corporate responsible thinking in the decision making process. The framework allows investors to track the environmental and social impact of a particular investment; thus, incentivising corporations to act in a more environmentally and socially responsible way as investors may screen for the best performers in this aspect.

ESG strategies highlight an important discussion of modern day finance discourse, which is that of Stakeholder Theory vs. Shareholder Theory. ESG decisions are typically associated with the stakeholder theory, which is a style of governance that advocates that the interests of all stakeholders be considered in the decision making process as per the rationale of Freeman (1994). In contrast, the shareholder theory is typically associated with the traditional finance perspective, and it argues that managers, as agents of the shareholders, should ultimately only be concerned with the interests of the latter (Friedman, 1970). In this particular case study, McDonald's decision is more stakeholder

theory friendly, whereas, RBI's decision is more representative of the shareholder theory.

There is also an on-going discussion in the literature as to whether ESG investments benefit from better financial performances. For example, according to new research (Luo, 2022) firms with higher ESG performance are likely to have lower stock returns, highlighting that investors pay a premium for these investments. However, there is also substantial evidence indicating otherwise, such as in a meta review of the 1,141 primary peer-reviewed papers and 27 meta-reviews on the subject (Atz et al., 2022), which concluded that ESG investment tends to yield indistinguishable outcomes from conventional investing in the majority of cases. In this paper, the authors also state that there is a lack of research around this subject from an academic perspective which causes ongoing research to be heavily founded on field journals and industry reports. Thus, there appears to be a gap in the academic literature investigating this relationship.

Additionally, given how recent the Russia-Ukraine war is and how it caused such a drastic change in the social, economic and political context, there is a gap in the literature examining its effects on the investor. Therefore, the aim of this dissertation is to provide a high-quality analysis dissecting the effects of ceasing operations in Russia in response to the invasion, more specifically, to measure its implications on the investors' returns as well as on the ESG literature.

Based on its goals, the research ahead will attempt to find an answer for whether investor's were hindered by the executive decision to suspend activities in Russia. To reach an empirical conclusion, this dissertation proposes as a null hypothesis that since the start of the Russian-Ukrainian war, investors in companies that left Russia had negative returns as a consequence of their corporate strategy.

One expects the conclusions of this research exercise to be of interest to decision makers within corporations, as it would permit them to develop a better understanding of the impact these types of decisions have on the firm. Additionally, it is expected that institutional and retail investors will be interested in the conclusions reached within this dissertation; as it would inform them of the potential consequences of ESG strategies on their investments, leading to better investment selections and recommendations to enterprise managers.

The methodology used to perform this analysis is grounded on the Fama-French 3 Factor model (Fama & French, 1992) and a further robustness test is performed based on the Fama-French 5 Factor model (Fama & French, 2015).

The remainder of the paper is structured as follows. Chapter 2 is a review of the literature. The empirical methods and assumptions are introduced in Section 3. The sample data is described in Chapter 4. Chapter 5 summarises the empirical findings. Chapter 6 discusses the implications of the results. Chapter 7 has some concluding observations.

Chapter 2 - Literature Review

To have a comprehensive understanding of a multifaceted topic, it is necessary to dissect it into three distinct parts, each targeting a different aspect of this problem. To make the review more accessible and more substantial, we will explore each segment separately. The review will commence with an analysis of the macroeconomic implications of the war, followed by a section on the link between political instability and stock returns and finalise with an evaluation of the effects of corporate governance on investors' returns.

1. Macroeconomic Effects of the Russia-Ukraine War

War has a significant influence on macroeconomic conditions because it disrupts trade, ruins infrastructure, and diverts resources away from productive activities such as farming and manufacturing to help the war effort. War frequently leads to a decline in investment as investors and consumers lose confidence in the future, resulting in a decrease in consumer spending, which intensifies the economy's decline. To analyse the effects of the Russia-Ukraine war on macroeconomic conditions, this thesis took into consideration the literature on global supply chains and volatility spillovers.

1.1 The Global Supply Chains

Ngoc et al. (2022) provides an in-depth analysis of the effects of the Russia-Ukraine war on global supply chains under-pinned by a Global Supply Chain Management (GSCM) point of view. GSCM aims to propagate better efficiency in the operating systems of rules, structures and institutions that form the foundations of global supply chains through the implementation of policies and best practices worldwide. In the background of the Covid-19 health crisis and the Russia-Ukraine war, the researchers observed that many key transportation

routes were inoperable and air freight rates rose causing severe disturbances of the supply chains. The article argues that the disruption of supply chains lead to higher cost of production and in some cases a scarcity of input raw materials such as platinum, aluminium, sunflower oil, crude oil and steel, which threatened the closure of some Russian, Ukrainian and European factories.

Jagtap et al. (2022), employs a PRISMA approach to examine a variety of sources, including grey literature, on the subject of food-supply chains ranging from 2009 to April 2022. The researchers sought to determine whether the Russia-Ukraine war had an impact on the food-supply chains worldwide until that point; they were able to confirm this hypothesis across 6 aspects of the food-supply chain: Food production, processing, and storage, Food transport logistics, Food market/retail, Consumers, Food dependent services, and Food quality. Furthermore, they were able to identify a stronger impact on the European and African markets due to their dependency on Ukrainian food supply.

Similarly, Hassen and Bilali (2022) provides a candid report on the effects of the Russia-Ukraine war on food security globally. The article weighs the realised short term effects and the potential long term consequences stemming from this critical event. Shortly after the invasion, Ukraine saw a destabilisation of the transportation of agricultural products both internally and externally with the destruction of much of its infrastructure, especially in the southern and western regions, where the ports for the Black Sea are located, leaving the country unable to export goods maritimately. Secondly, farmers were unable to operate on the fields due to the war; affecting the country's ability to produce and export agricultural goods and leaving a hole in the global supply of sunflower oil, for example, that experts argue would be hard to fill by other sources. Thirdly, the war increased uncertainty on the Russian side as NATO affiliated countries imposed sanctions on Russian exports, decreasing the

supply available of these products on a global scale. The culmination of these effects generate strained supply chains, decreased food security and heightened levels of instability, and food production costs.

1.2 The Volatility Spillovers

Beraich et al (2022) provides insight into a different aspect that was affected by the Russia-Ukraine war, the volatility spillovers. Volatility spillovers can be categorised as shockwaves derived from an external event that influence the variation of prices in an otherwise independent market. Researchers in this article employ a Diebold and Yilmaz methodology (a VAR variant) to analyse 3 international financial markets (Europe, USA and China) to determine if these were affected by volatility spillovers from the Russia-Ukraine war from 1st of January 2019 to 1st of June 2022. The analysis concludes that the markets shared low connectivity and a smaller chance of daily price variation being influenced by the events in Ukraine prior to the war, and that following the events of the 24th of February there was heightened level of connectivity and significant level of volatility spillovers, particularly, in the U.S. market.

In the same way, Mu et al. (2022) examines the volatility spillovers caused by the Russia-Ukraine war among international financial markets. Likewise, they deploy a VAR based methodology and cover the daily variations on American, Japanese, Hong Konger, British, Chinese and Russian indices spanning 4th of January 2012 to 21st May 2022. Although the results show varying degrees of spillovers over the 5 indices, they also show a gradual decrease in spillovers after the countries make policy adjustments, especially Russia, across the board.

2. Effects of Political Instability on Stock Returns

One other component of the Russia-Ukraine war that has been identified in the literature as having an influence on stock market valuations is the consequences of heightened political instability.

Political instability may have a significant influence on stock market performance (Chau et al., 2014). This is due to investors' perception of political unrest as a source of uncertainty and risk in the investing climate. For example, political instability can result in changes in government policy, which can have a detrimental influence on economic conditions and investor confidence. As a result, investors may cut their stock market investments, resulting in lower demand and lower stock prices.

The relationship between political instability and stock market returns is significant and complex, and it is critical to properly examine how the political events in the past influenced the financial markets to understand how the Russia-Ukraine war is likely to impact the dataset and to support the hypothesis that underpins the research below.

2.1 Politics and the Investor Sentiment

This subsection will look at the relationship between political events and the investor sentiment, specifically how the investor perceives the risk component. Numerous studies have identified a correlation between increasing political uncertainty and increased stock market volatility, adding validity to the notion that a rise in political uncertainty leads to a deterioration of investor's returns.

Pastor and Veronesi (2013) develop a model to examine the link between politics and risk premia. The researchers test this methodology on a monthly set of observations ranging from January 1985 through to December 2010. The model predicts that in times of weaker economic conditions the risk premia is elevated through an increase in political instability, as it is often accompanied

by a change of policy from the government. However, the model also suggests that due to an increased likelihood of intervention and, therefore, and in some cases increased protection from the government, there is a counteracting effect. Additionally, the research suggests that political instability increases the volatility and correlation of equities, especially when the economy is underperforming, as it could be the case during the period this thesis will analyse, since it captures part of the recovery from the Covid-19 crisis.

Wisniewski (2016) surveys the literature to determine if there is a link between politics and stock returns. In particular, the author examines the effects of different types of political events, particularly, wars, international political crises, terrorist attacks, challenges to domestic leadership and political communications. In the case of wars and political crises, the literature seems to suggest that these types of events were negative sum games, where they almost certainly resulted in losses in the international financial market. For example, the article references the research of Wolfers and Zitzewitz (2009) which, during the lead up to the Gulf war, observed that an increase of 10% on the probability of war between the US and Saddam Hussein resulted in a reduction of 1.5% on the S&P 500.

Hartwell (2018) assesses the influence of political volatility on capital market returns in EU accession and neighbouring countries using asymmetric GARCH modelling using monthly data. The researcher looked at data from 20 different nations, including Ukraine and Russia, from January 1989 to December 2012. The findings of this study show that political changes increase financial market volatility, however stock market returns remain substantially unchanged. Interestingly, the findings appear to indicate that these economies acted similarly to more developed ones, in that elections had a greater impact on capital markets than any other political event.

2.2 Conflict and Stock Returns

The relationship between war and stock returns is a difficult but well-discussed issue in finance (e.g., Hoffman and Neuenkirch (2015), Boungou and Yatié, 2022, Chau et al., 2014). Conflict is widely acknowledged to have a significant influence on stock markets and the global economy as a whole. As mentioned previously, conflict can disrupt the normal operation of economies and have a negative impact on corporate and consumer confidence, resulting in lower stock returns. The extent to which war affects stock returns is further dependent on variables such as the duration and intensity of the conflict, the size of the affected economy, and the government's fiscal and monetary policies. Regardless of how difficult it is to estimate the precise impact of war on stock returns, it is clear that a careful analysis of the literature on the topic is required.

Prior to the ongoing conflict between Russia and Ukraine, there was another period of high hostility between the two countries associated with an uprising in the southern and eastern regions against the pro-European Union administration, at the time, that culminated in the invasion and annexation of Crimea by Russia. Hoffman and Neuenkirch (2015) make an analysis of the impact of the escalation of the conflict on the stock returns of Ukrainian and Russian indices. The researchers deploy an EGARCH methodology to analyse daily observation of the escalation proxy and other financial data ranging from 21st of November through to 29th September 2014. The conclusion of this research exercise is that an escalation of conflict was bad news for both countries with the Russian index dropping an estimated 21bps for every increase of 1bp in escalation, and Ukraine also suffering from a drop as high as 30bps for the same increase. Overall, based on these results we can infer that, in general, war tends to be bad for the shareholders of both parties involved in cross border conflicts.

Currently there have been analyses of the impacts of the Russian Ukrainian war on global financial markets. Namely, the research of Boungou and Yatié (2022) which investigates the fallout of the Russian-Ukrainian war on the stock returns of 94 countries. The sample period begins on the 24th of January 2022 and terminates on the 24th of March 2022 and is dissected with a regression analysis consisting of almost 3750 daily observations. The conclusion is that overall there was a negative relationship between the intensity of the conflict and the stock returns in the sample countries investigated. Additionally, the research also makes the distinction between countries that condemned Russia's action or remained neutral, they found that the response was more accentuated in the countries that condemned Russia than neutral countries. This thesis is to determine whether there is a statistically significant difference between neutral (remaining) and condemning (leaving) companies and it would be interesting to check if the relationship found at the country level translates over to the corporate level.

3. Effects of Corporate Governance on Stock Returns

Since ultimately the goal of this research exercise is to identify which Governance approach was the most beneficial to shareholders, it is important to explore the literature on Governance. In particular, this section will analyse the relationship between Corporate Social Responsibility (CSR), ESG and investors' return. CSR refers to the voluntary actions taken by companies to improve their impact on society and the environment.

It is argued that there is a positive correlation between CSR and stock returns. The argument is attributed to increased stakeholder trust and confidence in the company, improved brand reputation, and reduced operational risks. For example, Jo & Harjoto (2011) which explores the influence

of internal and external corporate governance and monitoring systems on the choice of CSR participation and the value of businesses engaged in CSR activities, which among many findings were able to conclude that overall CSR engagement was positively correlated with the value creation for companies. The researchers employed Heckman's two-stage estimation and a data set of 3000 companies from 1993 to 2004. The study found that firms that chose to engage in CSR activities have positive evolutions of board leadership, board independence, institutional ownership, analyst following, and anti-takeover provisions metrics.

However, there is evidence in the literature that points to the contrary, namely, the paper published by Prol & Kim (2022). In this study, the researchers selected an ESG optimised portfolio based on the Markovitz mean-variance framework and estimated its returns from 2018 to 2019. The study estimates that ESG minded portfolios benefitted from lower volatility, however, that can at the cost of lower returns. It is important to note that the relationship between CSR and stock returns is complex and can be affected by various factors, such as the industry in which a company operates and the accuracy of CSR disclosures. Nevertheless, the link between CSR and stock returns is a growing area of interest among academics and practitioners, as it has important implications for companies, investors, and society as a whole.

More recently, Tosun & Eshragi (2022) explored the governance approach taken by firms in relation to the Russian market following the Russian-Ukrainian war. The researchers selected a group of 28 remainers and matched each firm to a corresponding firm in size and business activity that halt operations in Russia (leavers). The study aims to determine if the decision to leave generated abnormal stock returns when compared to those of firms that chose to remain in the short term; to achieve this the methodology chosen was a difference-in-differences analysis of daily data ranging between the 3 February

and 8 March 2023. The conclusions drawn from the investigation are that remainers underperformed when compared to both the market and the leavers, the results are in line with previous literature on the CSR and firm valuation (Jo & Harjoto, 2011) and will form the foundation for the hypothesis that underpinned this thesis. Tosun and Eshraghi state that future research can explore if this link remains in the medium to long term as a way to test if investors remain mindful of unfavourable corporate behaviour.

Chapter 3 - Methodology

The Fama-French 3 Factor model (FFM) is an asset pricing model developed by its namesake's creator Eugene Fama and Kenneth French. The model seeks to explain stock price fluctuations by accounting for a variety of factors that might impact such movements. Stock returns, according to the concept, are impacted not only by broad market oscillations, but also by the size and value characteristics of any particular firm. The FFM can give a more nuanced understanding of how different types of shares may perform over time considering their size and value. This is especially important for investors who want to develop diversified portfolios that account for many risk variables.

One reason one would use the FFM to determine long-term stock market returns is because it has been proven to outperform simpler models that solely examine the market element, such as the Capital Asset Pricing Model (CAPM). Other variables can help researchers account for exogenous risk factors and, in this case, isolate the influence produced by the corporate decision. Furthermore, the Fama-French model has been thoroughly tested and proven in academic research, giving users greater confidence in its capacity to reliably anticipate returns.

The regression analysis, in Eq. (1), used in this study is founded on the work of Fama and French. Where the dependent variable r_{it} is the rate of return for company (i) at time (t), and LV is both the independent and a dummy variable, where leaving companies are marked as one and remaining companies are attributed a value of 0. The control variables include r_f is the risk-free rate; r_m is the market rate of return; SMB (Small Minus Big) is a variable that accounts for the disparity of rates of return between small and large companies; HML (High Minus Low) accounts for the disparity in rates of return between high and low book-to-price ratio. And finally, ε accounts for all other unaccounted risks.

$$r_{it} = r_f + \beta_1(r_m - r_f) + \beta_2(SMB) + \beta_3(HML) + \beta_4(LV_i) + \varepsilon \quad (1)$$

In addition to the equation above, this study employs another regression model to test the robustness of its results. Eq. (2) employs an additional 2 variables, said to influence traded equities, as per the research of Fama and French (2014), which are *RMW* (Robust Minus Weak) and *CMA* (Conservative Minus Aggressive). The former accounts for the difference in market performance between firms with robust and weak operating ratios; whereas, the latter accounts for the difference in market performance between an aggressive and conservative investment profile. The inclusion of these variables is due to a well-established awareness in academia of their influence over equity prices, hence the need to isolate their effects from the independent variable.

$$r_{it} = r_f + \beta_1(r_m - r_f) + \beta_2(SMB) + \beta_3(HML) + \beta_4(LV_i) + \beta_5(RMW) + \beta_6(CMA) + \varepsilon \quad (2)$$

In line with the research question, the null hypothesis this dissertation aims to test is the following:

$$H_0: \beta_4 < 0 \quad (3)$$

And the alternative:

$$H_A: \beta_4 \geq 0 \quad (4)$$

The limitations of the FFM model start with the fact that it is based on the efficient market hypothesis (EMH). The EMH is theory conceptualised by Fama (1970) and it states that markets are fully efficient at pricing securities based on all the publically available information. For that reason, EMH theorists believe it is not possible to outperform the market, however, an emerging field of finance argues the contrary. Behavioural finance supporters argue that models underpinned by the EMH do not account for important behavioural biases on the part of investors which could lead to inaccurate asset pricing, such as overconfidence, herding and anchoring biases, as highlighted by Barberis and Thaler (2003). Additionally, EMH does not account for market frictions brought on by liquidity restraints and transactional costs, as well as, information asymmetries as market participants may not all be privy to the same information.

To produce an improved analysis, this model could have included a variable to account for the dependency of the selected companies on the Russian market, as well as, increased the sample size to cover publically traded companies in different geographies and at different stages of development, however this data was not possible to collect.

Chapter 4 - Data

In this chapter, we provide an in-depth description of the information considered in the study. A detailed understanding of the data is essential for interpreting the outcomes of the research and verifying the validity of its conclusions.. In addition, any industry-specific or macroeconomic factors that we employ as control variables in our research are included. This section's purpose is to give readers a concise and comprehensive understanding of the data that supports our analysis.

This thesis focuses on the relationship between a particular governance decision on the returns of shareholders of the company following the start of the Russian-Ukrainian war. Therefore, the data collected for this exercise ranges from 01 February 2022 to 31 December 2022, with daily frequency. The sample includes the returns on 54 companies (dependent variable), a variable to differentiate governance decisions (independent variable) and a selection of control variables, based on Fama-French 3 Factor theorem: size and value, risk free rate and market return. Additionally, to test the robustness of the model, we estimate a regression that includes an additional 2 factors: robustness and risk appetite. The software used to perform the regressions was R and the codebook for this study is provided in the annex

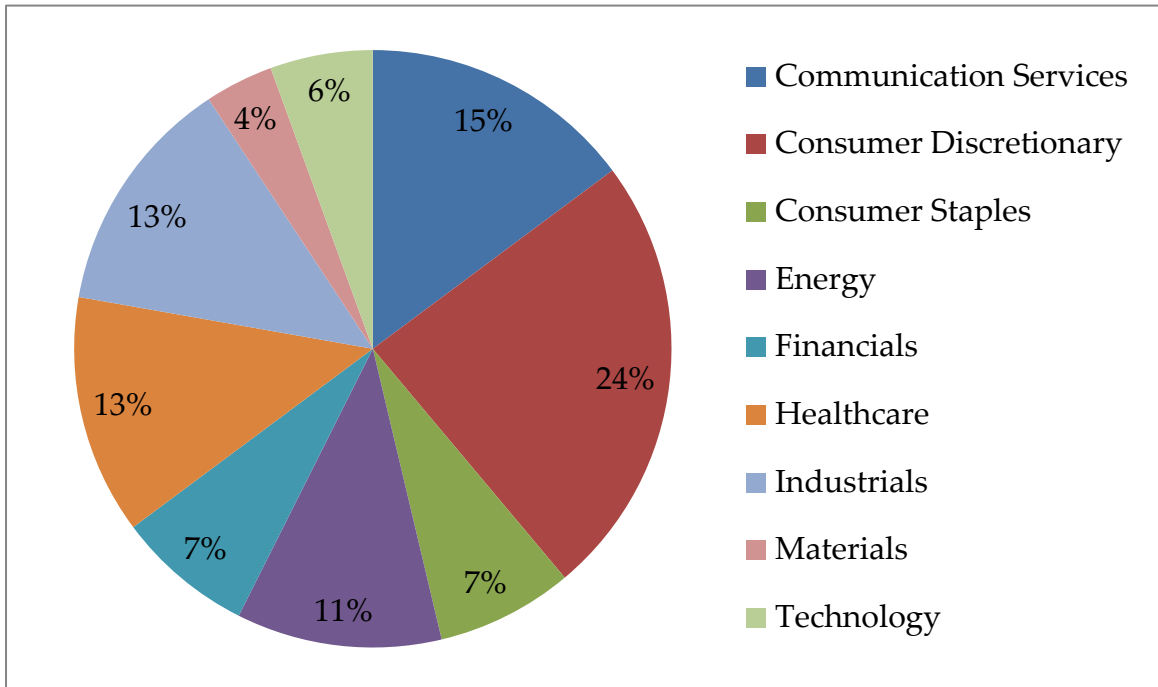


Figure 1: Sector Distribution; based on the Global Industry Classification Standard.

The sample of 54 companies which this dissertation studies are the initial selection of Tosun & Eshragi (2022), 27 of the companies were selected based on their decision to leave Russia within two weeks and the remaining 27 were selected from a pool of remainders of similar market cap and business activity. The researchers sourced this information from an online database that tracks which firms suspended operations in the Russian market following the invasion. The closing stock prices needed to deduced stock returns for the aforementioned companies were extracted with the help of a Bloomberg terminal and are in US dollars. The remaining variables, namely, the High-minus-Low (*HML*), the Small-minus-Big (*SMB*), *RMW* (Robust Minus Weak), *CMA* (Conservative Minus Aggressive), R_f and R_m , were extracted from the Fama and French Dartmouth database. The R_f is a measure of the one-month US Treasury bill yield, and the R_m includes a value weighted return of NASDAQ, AMEX and NYSE indices.

The sample has a total of 13,554 observations across 10 variables. However, from this larger set of data, I created 4 subsets based on time period. The first of these subsets covers the first week following the invasion, the second is for the first month, the third covers the first 6 months following the 24th of February, and the final subset includes the observations collected until the end of 2022. Furthermore, there was a need to correct the group of companies from the source paper, as one of the companies, Citrix systems, was delisted during the covered period and a firm from the opposite list with the closest market cap, Bain, for balancing purposes.

Table 1 summarises the basic properties of the sample data using descriptive statistics. Table 1 shows the mean, median, maximum, and minimum values for each variable, indicating the normality and range for the variables that the inputs can follow. The standard deviation measures the degree of dispersion around the mean, with higher values indicating greater variation. Skewness and kurtosis are measures of the distribution's asymmetry and peakedness, respectively. Lastly, the Jarque-Bera test statistic indicates if the data is considerably deviating from a normal distribution, with higher values indicating greater deviation.

Table 1: Descriptive Statistics							
	r_i	r_f	$r_m - r_f$	SMB	HML	RMW	CMA
Mean	-0.0386	0.0070	-0.0318	0.0308	0.0418	0.0088	0.0512
Median	0.006	0.008	-0.112	0.043	0.082	-0.041	0.084
Maximum	90.18	0.017	5.68	1.39	2.59	4.21	1.56
Minimum	-122.421	0.000	-4.29	-1.58	-3.86	-2.16	-2.79
Std. Deviation	3.7941	0.0061	1.5810	0.5443	1.1492	0.8246	0.8102
Skewness	-2.2969	0.3361	-0.0180	-0.1140	-0.4583	0.4924	-0.3809
Kurtosis	154.5873	1.6365	3.2307	2.7955	3.3892	5.1173	2.9005
JB - Test	1298.91**	1305.12**	30.78**	52.99**	559.96**	3079.56**	333.33**
p-Value	0.0000	0.0000	2.07e-7	3.11e-12	0.0000	0.0000	0.0000
* = 10% significance level; ** = 5% significance level; *** = 1% significance level.							

Chapter 5 - Empirical Results

In this chapter, we present the results obtained from the regression analysis on the 5 time based subsets. In addition, there is an evaluation of the model's goodness-of-fit and the statistical significance of its coefficients. Table 2 shows the regression results from the FFM regressions. The table illustrates the magnitude of the variables' influence on stock returns in addition to measures for goodness of fit.

Table 2: Regression Results

	TOTAL	1 WEEK	1 MONTH	6 MONTHS	EOY
r_f	12.1180** (4.9157)	N/A N/A	N/A N/A	20.5974 (17.1500)	11.2637** (5.0288)
$r_m - r_f$	0.9955*** (0.0226)	1.1750*** (0.1919)	1.1914*** (0.0818)	1.0214*** (0.0319)	0.9869*** (0.0223)
SMB	0.1952*** (0.0574)	0.1551 (0.7964)	0.2012 (0.2142)	0.2316*** (0.0799)	0.1932*** (0.0588)
HML	0.0938*** (0.0319)	0.2434** (0.1370)	0.2448*** (0.0825)	0.1219*** (0.0405)	0.1028*** (0.0319)
LV	-0.0372 (0.0595)	0.6814 (0.4293)	0.3126 (0.3126)	0.0188 (0.0885)	0.0138 (0.0600)
Intercept	-0.0832 (0.0544)	-0.6278 (0.3211)	-0.2606 (0.1519)	-0.1143 0.0768	-0.0981* (0.0567)
Adjust. R^2	0.1656	0.1716	0.1789	0.1638	0.1712
F-Statistic	539.0	17.73	65.64	267.6	525.3
p-value <	2.2e-16	3.715e-13	2.2e-16	2.2e-16	2.2e-16

* = 10% significance level; ** = 5% significance level; *** = 1% significance level.

Every regression test, in table 2, had a F-statistic with p-values lower than 0.00, implying that any interpretation of the coefficients may be significant proof against the null hypothesis and that the empirical relationship between the variables is unlikely to be down to chance.

The risk free rate appears to have a sizeable, statistically significant and positive impact on the stock returns of the companies in the sample towards the

end of the year. Interestingly, in the remaining control variables the coefficients also became increasingly statistically significant at the sample covers longer periods of time.

The $r_m - r_f$ is the only variable across every test that remains statistically significant beyond the 1% significance level. This variable also correlates positively with stock returns, though, decreasingly so as time goes on.

SMB is a control variable that accounts for the fact that small businesses tend to generate higher stock returns for stockholder, given that they are predisposed to grow more rapidly when compared to more established firms. This variable becomes statistically significant beyond the 6 month where it maintains a positive link with stock returns.

The High-Minus-Low effect is statistically significant beyond the 1% level of significance, except, during in the one week subgroup analysis where it only achieved a 5% significance level. Over the many regressions performed its impact remains positively linked with variations in stock price.

Despite the independent variable, *LV*, seemingly having a positive relation with stock return oscillations until the end of the year, that effect fails to become statistically significant. This means that the coefficient for the independent variable cannot be different from 0; for this reason and the goodness-of-fit discussed above, we cannot accept the null hypothesis in favour of the alternative.

Table 3 presents a comparison between the results from the FFM and the robustness test, FF5M. To finalise, this chapter touched on the implications of the results on the null hypothesis.

Table 3: Robustness Regression Results

	TOTAL	Robust Total	EOY	Robust EOY
r_f	12.1180** (4.9157)	12.3642** (4.9178)	11.2637** (5.0288)	11.5969** (5.0312)
$r_m - r_f$	0.9955*** (0.0226)	0.9842*** (0.0235)	0.9869*** (0.0223)	0.9736*** (0.0232)
<i>SMB</i>	0.1952*** (0.0574)	0.1436** (0.0650)	0.1932*** (0.0588)	0.1364** (0.0672)
<i>HML</i>	0.0938*** (0.0319)	0.1613*** (0.0510)	0.1028*** (0.0319)	0.1867*** (0.0516)
<i>RMW</i>		-0.0618 (0.0471)		-0.0574 (0.0486)
<i>CMA</i>		-0.1021 (0.0719)		-0.1356* (0.0724)
<i>LV</i>	-0.0372 (0.0595)	-0.0372 (0.0595)	0.0138 (0.0600)	0.0138 (0.0600)
Intercept	-0.0832 (0.0544)	-0.0808 (0.0545)	-0.0981* (0.0567)	-0.0956 (0.0567)
Adjust. R^2	0.1656	0.1657	0.1712	0.1714
F-Statistic	539.0	385.5	525.3	375.9
p-value <	2.2e-16	2.2e-16	2.2e-16	2.2e-16

* = 10% significance level; ** = 5% significance level; *** = 1% Significance level.

The robustness checks shown differ from the preferred regression in that they have two more variables, in conformity with the FF5M. When comparing the performance of each model on the Total subset, the robust model does have a marginally higher adjusted R^2 , however, the coefficients of the new variables in the FF5M are not statistically different from 0; therefore, they are not a good addition to the study. In relation to the subset that stretches to the end of year, the coefficients also have similar magnitudes and statistical significance; however, in this case, the coefficient for the *CMA* is statistically significant beyond the 10% level but not the 5%. For this reason, the FF5M does not make a better analysis of the sample data in this study. The F-statistic is also higher in both of the FFM models, which indicates the model and its independent variables are collectively better at explaining variations in stock returns.

Chapter 6 - Discussion

The assessment of the empirical analysis' results is presented in this discussion section. The primary objective of this part is to assess the findings critically and to uncover the significant insights which can be gathered from the information in the section above. The discussion part seeks to give a deeper insight into the effects of corporate decisions on stock returns by investigating the implications of the findings for the theoretical and practical aspects of finance. In this section, I will assess the results, highlight the important findings, compare findings with those of prior research, and weight its impact on the literature. Moreover, the discussion will address the study's shortcomings and make recommendations for further research.

The study's research hypothesis intended to explore the influence of corporate decisions on stock returns. With the objective of assessing the significance of this interaction, a null hypothesis was developed based on the predicted link between the independent and the dependant variable. The null hypothesis raised states that leaving the Russian market after the war would lead to negative performance of the corporation's shares in the financial markets, based on the expectation that leaving would drive cash flows, and by extension, the firm's value downwards.

However, the results of the empirical analysis show that, after isolating for market and firm characteristics, the independent variable did not have statistically significant impact on stock returns. Meaning that, the firms that chose to halt business operations in the Russian market following the start of the Russian-Ukrainian war did not have a statistically significant difference in shareholders' returns to those that chose to remain.

This contradicts the rationale behind the null hypothesis in favour of the alternative hypothesis. It could be that investors in this particular case valued the loss in cash flows equally to the expected volatility reduction of operating in the unstable Russian market.

The impact of these findings in this dissertation on the literature can be weighted in comparison to the articles analysed in the literature review. Previous research on this topic, found that remaining firms created less value for shareholder in response to the Russian-Ukrainian war (Tosun & Eshragi, 2022). In both cases, we find that Leavers did not generate lower returns for their investor. Furthermore, Tosun and Esharagi (2022) find that leavers produced more value for their shareholders. However, given that studies shorter time horizon, the literature was missing an analysis of the effects of corporate strategies on shareholders' returns beyond 1 month after the incident. The discrepancies could be caused by the fact that the researchers isolated the effects of broad market returns, the firm's market value and unemployment, leaving additional firm characteristics out of the analysis.

As stated previously, conflict can have a great impact on the economy, as well as the stock market. Hoffman and Neuenkirch (2015) found that during the previous conflict between the two ex-soviet countries, an escalation of 1bp, by way of a proxy, would result in approximately 21bps and 30bps drop in the Russian and Ukrainian index. Similarly, Boungou and Yatié (2022) analyses the impact of the 2022 Russian-Ukrainian war on stock returns and finds that the intensity of the conflict is negatively correlated with stock returns. In addition to these findings, the study found that in countries where the government had condemned the Russian government's actions the inverse relationship between conflict and stock returns where more accentuated. The findings of this dissertation find that this effect does not translate to the corporate level, as companies that essentially condemned the actions of the Russian government

were not negatively affected, they performed indistinctly from their neutral and pro-Russia counterparties. From a practical perspective, the results from the dissertation show that neither corporate strategy was successfully in shield the companies from the systemic impact of the Russian and Ukrainian conflict.

In terms of the corporate governance literature, the empirical findings support prior studies such as Jo and Harjoto (2011). The empirical findings support their contention that effective corporate governance procedures, such as the introduction of social responsibility initiatives, do not necessarily destroy value for corporations. Furthermore, by employing a larger sample size and more current data, our work adds to the empirical evidence on this front. ESG decisions, can therefore be considered by executives and investors as they may not be taken at their expense, inevitably.

This discovery has both theoretical and practical consequences. To begin with, theoretically, this result implies that CSR efforts are not inherently value-destroying for investors, and this data supports the stakeholder theory. This is because companies that choose to practice CSR have had no impact on shareholder value while creating value for their stakeholders, mainly their regulators and consumers.

In practice, CSR can enhance a company's reputation, leading to increased sales, customer loyalty and a more favourable public image. In addition, CSR can help companies address risks associated with environmental, social and governance issues. By proving that CSR does not reduce shareholder value, the study can help CEOs explain their CSR initiatives to shareholders and other stakeholders. This information can serve as the basis for legislation and business recommendations for regulators, as policy makers drive business behaviour to make you more aware of ESG issues. Customers may be more motivated to support CSR companies as their brand reputation improves and the negative externalities hurting all stakeholders are reduced. Ultimately, our

research helps investors make more informed investment decisions in choosing assets and building ESG-optimized portfolios.

There are various limitations to this study that should be addressed. One possible weakness is that only corporations operating in the American market are included. As a result, the applicability of our findings to other areas or nations may be limited, as the American market may also have distinct characteristics that influence the link between corporate governance and financial performance.

As a result, the geographic and developmental variety of the sample is limited in this study. Future studies should include enterprises from a broader variety of areas and nations at various levels of development to strengthen the validity of our results. This would provide a more solid understanding as to how corporate governance influences business performance in a variety of circumstances.

This dissertation did not include a variable that directly quantifies a company's reliance on the Russian market, which might be an essential component to include when investigating the link between corporate governance and the firm's returns in the aftermath of the Russian-Ukrainian war.

To address this constraint, future studies could employ different methods or include more variables to give a more detailed picture of the link between corporate governance and stock returns in the aftermath of the conflict.

Chapter 7 - Conclusion

Ultimately, the research question this dissertation aims to answer is whether the shareholders of companies that stopped operating in the Russian market were negatively affected by their management's decision. Motivated by the relevance of this question in the current macroeconomic and geopolitical context we formulate the research question into testable terms. The study took as the null hypothesis that leaving companies would experience a negative evolution in the stock market.

The FFM based regression found that the independent variable remained statistically insignificant throughout 5 time horizon dependent tests. The time horizons were the following: (i) one week, (ii) one month, (iii) six month, (iv) end of year and (v) until the end of January 2023. Therefore, the answer for the research question is that the decision to halt operating in the Russian market was not a value destroyer for stockholders, as hypothesised. For the 54 companies we selected, in a period ranging from the February 2022 to January 2023. This result has implications in both theoretical and practical contexts. Firstly, theoretically, this result implies Corporate Social Responsible endeavours may not be inherently value destroys for stockholders, and that is so, this evidence supporting stakeholder theory. This is because the companies that decided to act in a CSR way did not impact shareholder value, even though they created value for its stakeholder, mainly its regulators and customers.

Secondly, in practice, CSR may improve a company's reputation, leading to greater sales, customer loyalty, and a more favourable image in the eyes of the public. Moreover, CSR may help enterprises in managing risks linked to environmental, social, and governance concerns. The study can assist executives defend their CSR actions to shareholders and other stakeholders by demonstrating that CSR does not hurt shareholder value. For customers, they

can customers may be more inclined to support CSR enterprises as they improve their brand reputation and reduce their negative externalities that affect all stakeholders. Additionally, this study enables investors to make more qualified investing decisions when selecting assets and developing portfolios that are optimised for ESG issues. Finally, for regulators and policymakers, this information can form the foundations for regulation and corporate guidelines as they steer corporate behaviour, in a way that is more aware of ESG concerns. Given that CSR and financial success are not mutually exclusive; regulators and policymakers may be more willing further encourage and integrate better CSR practices at companies, without obstructing their financial performance. Namely, in response to the Russian-Ukrainian War, policymakers may be more inclined to advise companies to stop operating in Russia, as they will not be penalised in the equities market.

Despite an earlier research paper covering this subject in the first week following the invasion, this dissertation remains unique as it explores a much longer period in the wake of the start of the Russian-Ukrainian war. In addition, the model selected to conduct to test the null hypothesis is a differentiating factor from the previous literature.

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Annex

Table 4: List of Companies Chosen

Leavers		Remainers	
Firm	Ticker	Firm	Ticker
Under Armour	UAA	Abbot Labs	ABT
Alcoa	AA	Abbvie	ABBV
Alnylam	ALNY	Accor	AC
Alphabet	GOOGL	Amerisource Bergen	ABC
Apple	AAPL	Arconic	ARNC
AT&T	T	Baker Hughes	BKR
Blackrock	BLK	Bunge BCSF Bain	BG
BP	BP	Burger King	QSR
Canada Goose	GOOS	Cargill	CARG
Deere	DE	Citi	C
Disney	DIS	Cloudflare	NET
Equinor	EQNR	Coty	COTY
Exxon	XOM	Cummins	CNI
Fedex	FDX	Greif	GEF
General Motors	GM	Halliburton	HAL
Honda	HMC	Herbalife	HLF
		Intercontinental	
Levis	LEVI	Hotels	IHG
Lyondell Basell	LYB	Interpublic	IPG
Meta	FB	IPG Photonics	IPGP
Netflix	NFLX	Marriott	MAR
Nike	NKE	Mohawk	MHK
Seagen	SGEN	Mondelez	MDLZ
TJX	TJX	Ogilvy & Mather	WPP
Uber	UBER	Omnicom	OMC
Ups	UPS	Otis	OTIS
Walmart	WMT	Schlumberger	SLB
Warner Bros	WMG	Timken	TKR

Codebook:

```
> install.packages("tidyverse")
> library(tidyverse)
> install.packages("moments")
> library(moments)
> gapminder <- read.csv("C:/Users/Hugo/Desktop/Msc
Finance/Dissertation/Data/PanelDataThesis.csv")
> view(gapminder)
> summary(gapminder)

# Create 1 Week Subset (between dates 24/02/2022 and 03/03/2022)
sub01WEEK <- subset(gapminder, t >= as.Date("2022-02-24") & t <=
as.Date("2022-03-03"))

# Create 1 Month Subset (between dates 24/02/2022 and 26/03/2022)
sub01MONTH <- subset(gapminder, t >= as.Date("2022-02-24") & t <=
as.Date("2022-03-26"))

# Create 6 Months Subset (between dates 24/02/2022 and 24/08/2022)
sub06MONTHS <- subset(gapminder, t >= as.Date("2022-02-24") & t <=
as.Date("2022-08-24"))

# Create EOY Subset (between dates 24/02/2022 and 31/12/2023)
subEOY <- subset(gapminder, t >= as.Date("2022-02-24") & t <= as.Date("2023-
12-31"))

# Create TOTAL Subset (between dates 24/02/2022 and 31/12/2023)
subTotal <- subset(gapminder, t >= as.Date("2022-02-01") & t <=
as.Date("2023-12-31"))

Model01MONTH <- lm(AbR ~ RF + Mkt.RF + SMB + HML +
LEAV, data = sub01MONTH)

summary(Model01MONTH)

Model06MONTHS <- lm(AbR ~ RF + Mkt.RF + SMB + HML +
LEAV, data = sub06MONTHS)

summary(Model06MONTHS)
```

```

ModelEOY <- lm(AbR ~ RF + Mkt.RF + SMB + HML + LEAV, data =
subEOY)

summary(ModelEOY)

ModelTotal <- lm(AbR ~ RF + Mkt.RF + SMB + HML + LEAV, data =
subTotal)

summary(ModelTotal)

# Robustness Checks

ModelRobEOY <- lm(AbR ~ RF + Mkt.RF + SMB + HML + RMW + CMA +
LEAV, data = subEOY)

summary(ModelRobEOY)

ModelRobTotal <- lm(AbR ~ RF + Mkt.RF + SMB + HML + RMW + CMA +
LEAV, data = subTotal)

summary(ModelRobTotal)

subStats <- subTotal[, -c(1:2)]
> View(subStats)
> library(tseries)

skew <- sapply(subStats, skewness)
kurt <- sapply(subStats, kurtosis)
sd <- sapply(subStats, sd)
jb_test <- sapply(subStats, jarque.bera.test)

print(skew)
print(kurt)
print(sd)
print(jb_test)

```