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Bachelor Thesis

**Walking the Talk: Do socially responsible funds invest in  
companies that sanctioned Russia?**

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## **Abstract**

This study examines the response of actively managed funds to the actions taken by 523 publicly listed companies during the Russia-Ukraine war during the period from 28.02.2021 until 31.12.2022. We specifically investigate whether such actions – withdrawing, staying, or partially stopping companies’ operations – were appreciated by socially responsible funds, as reflected by the percentage change in share ownership in these companies.

Firstly, we examine how the company decision and fund social responsibility levels explain the percent position change in share ownership for the funds. The findings indicate that there is a difference in the percent position change on the company decision level and the fund social responsibility level. Secondly, we explore how the past performance of companies differs in the corporate decisions to respond to Russia. We find that companies that opted to leave Russia primarily have been better performing and more financially stable. Finally, the findings reveal that investors with varying degrees of social responsibility prioritize performance over the social responsibility of companies. More precisely, the companies that opted to exit Russia and performed better previously were the ones that saw a higher percentage decrease in the share ownership from active funds.

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*Keywords: ESG, Socially Responsible Investing, Ukraine, Russia, War, Sanctions, Company Ownership*

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## 1. Introduction

Environmental, social, and governance (ESG) practices are taken into consideration more and more by companies and investors that choose to follow corporate social responsibility (CSR) and socially responsible investing (SRI) guidelines. While in the past more emphasis has been placed on the environmental pillar of ESG due to climate concerns, as of February 24, 2022, when Russia began its brutal invasion of Ukraine, more and more companies have refrained from the Russian market emphasizing the social pillar in ESG. Since responding to Russia is both a financial, as well as an ethical decision, there is no clear understanding regarding companies' future profitability as a result of this phenomenon. Although some would believe that companies are hurting their shareholders by choosing to respond, others say that responding to this war by any means is the right thing to do. Pressure from society might drive the company's final decision, but do institutional investors align with this pressure? Do institutional investors react to the decision to withdraw from Russia positively or negatively?

Since the start of the war, Ukrainian President Volodymyr Zelenskyy has been calling on all countries, companies, and individuals to support Ukraine by any means in order to stop Russia and assist Ukraine. More specifically during his speech to the U.S. Congress, he calls the financial support "an investment in the global security and democracy that we handle in the most responsible way" (CNN, 2022).

In the early weeks of the invasion, NATO members, as well as other allied countries chose to impose sanctions on Russia, challenging the stability of the Russian government. Within three days of the war, companies, both private and publicly listed, also started to respond to the Russian invasion of Ukraine through different actions. The most prominent response was a complete withdrawal and suspension of operations in Russia. This response was deemed a unique stakeholder governance pressure on corporate stakeholders by Pajuste and Toniolo (2022). Thus, the Russia-Ukraine war serves as a crucial test for the implications of ESG factors for companies and investment funds. The response of companies and organizations in this war highlights the significance of social responsibility and the commitment to ethical business practices. This behavior has also garnered attention from the academic community, which has been led by professor Jeffrey Sonnenfeld and the Yale Research Team, who have been tracking companies' responses to the Russian invasion of Ukraine.

Our work contributes to the existing literature on how non-financial aspects drive investment decisions for institutional investors. Previously conducted research looks at how these non-financial factors are incorporated into investment decisions, such as the long-term investment horizons of institutional investors and ESG consideration (Erhemjamts and Huang, 2019; Busse, Goyal and Wahal, 2010), owning ethical companies with the intention to encourage “good corporate behavior” (Pedersen, Fitzgibbons, and Pomorski, 2020), or aligning with society's values (Borgers, Derwall, Koedijk, and Horst, 2015). Our study is similar to that of Hartzmark and Sussman (2019), where the authors reviewed a quasi-exogenous shock and how investors react to it. Quasi-exogenous shock is defined as a shock that is not industry specific and is unpredictable but has a noticeable effect on various groups (United Nations, n.d.). More precisely, we base our paper on the quasi-exogenous shock of the outbreak of the war in Ukraine that caused the initial reaction of companies, and the further downstream reaction of investors. Our paper complements this topic by examining an exogenous shock to a significantly large part of the market and by using institutional investor demand as a direct measure.

More recent papers investigate this topic by looking at how the outbreak of the war affected the financial markets (Deng, Leippold, Wagner, and Wang, 2022), how pressure from stakeholders drove companies to respond (Pajuste and Toniolo, 2022), or to what extent stakeholders are willing to bear the sanctions (Hart, Thesmar, and Zingales, 2022). While understanding the stakeholder-level effects of this event is important, we build on this topic by focusing only on institutional shareholders' perspectives. If funds were acting systemically differently to companies before the publication from professor Jeffrey Sonnenfeld and the Yale Research Team, then the change in share ownership could reflect this difference. Our findings suggest that that indeed may be the case.

In this paper, we aim to analyze whether institutional investors recognize corporate decisions to respond to Russia and state the following research question:

**How did socially responsible funds change the ownership of companies that took actions as a response to the Russian invasion of Ukraine by withdrawing, continuing or partially suspending their operations in Russia?**

In this paper, we demonstrate that there is a difference between investors that have high and low social responsibility importance. We provide evidence that funds reacted to the decision to withdraw from the Russian market differently, but we also find that there is a performance

aspect driving these decisions. We find consistency in these findings with Pedersen, Fitzgibbons, and Pomorski (2020), and argue that performance is considered before evaluating sustainability and other additional measures. Due to the downturn in the global economy, we see negative or defensive investment strategies for all fund types and also find there is a difference between leaving and staying in Russia. More precisely, compared to companies that were indecisive in their decision of exiting or remaining, we find that the decision to exit Russia generates a higher negative change in the share ownership, than the decision to continue business operations in Russia. These findings are consistent with findings from Hartzmark and Sussman (2019), who establish that investors mostly focus on the extremes of discrete measures; investors primarily focus on 1 and 5 globe ratings that were released by Morningstar. We also find consistency in our findings with Hart, Thesmar, and Zingales (2022) by arguing that investors are willing to support companies' decisions until they meet personal investment costs, such as additional expenses or losses that occur from the companies' actions. The rest of the paper continues as follows: section 2 explores the literature review and builds our hypothesis on previous findings, section 3 summarizes and explains the data we employed, section 4 explains our analysis and methodology, section 5 discusses our results, section 6 explains our limitations, and finally, in section 7 we state our conclusions.

## **2. Literature Review**

### **2.1 ESG and its impact on companies' decisions and performance**

Over the past decade ESG concerns have gained increasing attention in the business world, prompting companies to prioritize these issues (Serafeim & Yoon, 2021). The concept of ESG has originated from the idea of SRI and aims to integrate non-financial factors into investment decisions and daily business practices. According to Przychodzen, Gomez-Bezares, Przychodzen, and Larreina (2016), the ESG framework encompasses multiple terms and labels and can be better explained with the three pillars of sustainability, that include Environmental (e.g., climate change, carbon emission, energy usage), Social (e.g., employee satisfaction, diversity, gender equality, stakeholder relationships), and Governance (e.g., c-suite compensation, lobbying, political involvement) factors.

Companies address ESG issues to meet the interests of all stakeholders, including employees, consumers, the state, and the general public, rather than solely focusing on increasing shareholder value. However, there is a debate on whether it is possible to be committed to the principles of ESG whilst keeping shareholders satisfied with financial performance. Eccles and Serafeim (2013) find that companies with high ESG ratings (that are measured by different third-party organizations) tend to outperform their peers in the long run. Furthermore, companies also need to communicate their long-term sustainability plans with their investors to onboard and inform them, resulting in an increase in shareholders' value in the long run. Researchers use the phrase "Doing well by doing good" to explain companies' desire to engage in socially responsible activities, indicating that companies do so to improve their profitability and added value (e.g., Dowell, Hart, and Yeung, 2000; Orlitzky, Schmidt, and Rynes, 2003; Renneboog, Ter Horst, and Zhang, 2008 & 2011). Additionally, Dimson, Karakas, and Li (2015) studied the CSR engagements with US public companies from 1999 to 2009, and how they address ESG concerns. The authors found that ESG initiatives attract the attention of socially conscious customers and investors, resulting in advantages like heightened customer loyalty, greater capital accessibility, more effective risk management, and improved reputation. Dimson, Karakas, and Li's (2015) findings suggest that incorporating ESG into business practices can result in material gains for companies. Therefore, we conclude that ESG is a value-driven approach that can benefit firms that adopt it.

The Russian invasion of Ukraine can already be considered as one of the most significant wars in modern history, due to the broad interventions of governments, individuals, and private companies taking action against Russia. Such actions are argued to be socially responsible during the Russian invasion of Ukraine. Individuals responded by donating and actively participating in support movements. While private companies responded to the invasion of Ukraine by imposing sanctions in different ways, some withdrew, some stayed, and some scaled back in Russia. These sanctions have been captured and updated daily by professor Jeffrey Sonnenfeld and the Yale Research Team<sup>1</sup> (2022), who group these companies into A, B, C, D, or F grades depending on the response to Russia, and the decision severity. Yale published a website at the end of March 2022, cataloging the responses of public and private companies, NGOs, and other organizations to the Russian invasion of Ukraine. The website's categorization of companies based on their actions, such as those that have withdrawn or continue to operate as usual, is of significant importance to various studies, including our own.

Hart, Thesmar, and Zingales (2022) conducted a survey that studied the stakeholders and their desire to see companies withdraw or in some way respond to Russia after the invasion. They refer to the Russia-Ukraine war as a novel war in terms of the enormous private sanctions, in addition to the sanctions imposed by different governments worldwide. They find that consumers see sanctions as a good response to the war to an extent of personal costs. While the willingness to punish is similar across all stakeholder groups, not all groups apply the same level of pressure on the company, due to individual costs. Furthermore, the authors argue that the stakeholders do not believe the response to Russia is purely commercial or a pure business decision, but rather an ethical one.

Following the Russian invasion of Ukraine, over 1,000 companies with more than one million Russians working for them decided to withdraw their operations from Russia (Sonnenfeld, 2022). Pajuste and Toniolo (2022) studied the corporate response to the Russian invasion of Ukraine, discussing stakeholder governance and pressure. The authors find that stakeholder pressure can be strong in guiding businesses toward making decisions that prioritize responsible governance. Additionally, they state that external interventions are often essential to safeguarding the interests of stakeholders.

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<sup>1</sup> Jeffrey Sonnenfeld and Yale Research Team (March, 2022), <https://som.yale.edu/story/2022/over-1000-companies-have-curtailed-operations-russia-some-remain>  
A- Withdrawal, B- Suspension , C- Scaling Back, D- Buying Time, F- Digging In.

Tosun and Eshraghi (2022) and Deng, Leippold, Wagner, and Wang (2022) looked at how financial markets reacted to the invasion of Ukraine. The authors found that company performance and financial stability affected stock market performance after the war broke out, with more indebted companies' stocks performing worse. The authors more extensively find that the geopolitical relationship between the companies and Russia, as well as trade relations with China, play a huge role in determining the impact on equity markets. Finally, the authors state that there is no clear relationship between ESG measures and company resilience to this crisis.

## **2.2 Individual and institutional investors' investment decisions in active funds**

Multiple papers have indicated that investment behavior for both individual and institutional investors can be significantly affected by their decision-making processes. Individual investors tend to adopt a herd mentality by following the investment decisions of other people and channels, and tend to rely on short-term performance metrics in order to make investment decisions as suggested by Barber and Odean (2000). In contrast, institutional investors usually have longer investment horizons and tend to consider various factors such as long-term growth and returns as well as ESG criteria; another major influence behind institutional investor decision making is the experience of fund managers, as found by Erhemjamts and Huang (2019) and Busse, Goyal, and Wahal (2010).

According to CFA Institute (n.d.), more and more investors increasingly recognize the importance of ESG as a supplement to financial measures that can aid in assessing risk and growth potential. As a result, many investors are incorporating ESG ratings and risks while assessing potential investments in order to promote good CSR behavior and ethical business practices. At the same time, investors also seek ways to maximize financial returns, as noted by Pedersen, Fitzgibbons, and Pomorski (2020). Due to the complexity and differences of ESG data and analysis, some investors may lack the necessary expertise to effectively integrate ESG considerations into their investment decision-making process. Nonetheless, there is a trend among investors to take ESG into consideration, driving the adoption of ESG criteria in the active fund and individual portfolio management.

According to Hartzmark and Sussman (2019), investors collectively value sustainability, as investment funds with the five globe sustainability ratings (a measure of fund sustainability by Morningstar) receive inflows exceeding \$24 billion. Conversely, funds with the lowest

sustainability rating (one globe) see a decrease in fund flows of more than \$12 billion. These results suggest that sustainability is viewed as a favorable attribute of investment funds. Furthermore, the study indicates that investors anticipate superior performance from funds with high sustainability ratings. In summary, Hartzmark and Sussman's (2019) findings emphasize the importance of sustainability in investment decision-making and highlight the role of investor preferences and expectations in shaping the investment landscape.

### **2.3 Actively managed fund performance and investing decisions**

The issue of capital ownership and the investment strategies adopted by funds, with respect to public companies, has become a topic of debate in academic literature.

A study by Borghers, Derwall, Koedijk, and Horst (2015) investigates the importance of social factors in the investment decisions of U.S. mutual funds. The findings indicate that fund managers tend to avoid investing in controversial companies due to social concerns. It is increasingly more common that institutional and individual investors that follow some SRI standards to refrain from investing in socially questionable public companies. This might be due to following social norms or aligning their personal values and beliefs with investment decisions, as well as the risk of reputation (Hong and Kacperczyk, 2009). This suggests that active funds make their investment decisions with consideration for their investors' social norms.

As shown in the previous section, individual investors' focus on sustainability continues to grow, which can result in fund managers needing to adapt their strategies and practices to meet the evolving demands of their investors. Since individual investors increasingly avoid companies and funds associated with socially questionable practices or low sustainability standards, there can be mounting pressure on fund managers to consider social norms, investor values, and company performance, when making investment decisions. The pressures may cause some problems for the strategy and investment practices of fund managers.

The ongoing debate surrounding the consideration of ESG factors by institutional investors in their investment decisions has raised questions regarding their actual incentives. According to Starks (2009), the information on institutional investors' actions regarding ESG and the implementations in their portfolios, as well as the methods used to monitor ESG performance is very limited. Moreover, in their paper Orlov, Ramelli, and Wagner (2022) note that while some

fund managers view ESG as a means of mitigating risk and identifying opportunities, others view it as a tool for maximizing management fees.

Goldman and Slezak (2003) argue that funds with shorter investment time frames have less incentive to gather information about a company's long-term ESG prospects and are more likely to focus on forecasting quarterly earnings, implying that short-term financial gains are taken in higher priority. From an economic perspective, it is evident that fund clients seek a return on their investment, therefore, in the pursuit of short-term financial returns, evaluating a company's overall sustainability and social responsibility practices may be less important. Erhemjamts and Huang (2019) explain that institutional investors are a diverse group of stakeholders with varying investment timelines and perspectives. Long-term focused investors have more reason to incorporate ESG measures and promote SRI, thus ESG is given more weight by funds with longer investment horizons. Furthermore, Eccles and Serafeim (2013) argue that ESG practices can enhance a company's value in the long run, providing an additional reason for funds with long-term horizons to factor in ESG criteria in their investment decisions.

Building on the premise that corporations' response to the war is a socially responsible action, it can be inferred that the actions of active funds in response to companies' actions in response to the Russian invasion of Ukraine can also be considered as socially responsible investing. Consequently, we refer to the investment activities of funds regarding these companies as high, average, and low social responsibility.

## **2.4 Hypotheses development**

Drawing from the existing literature on the ongoing Russia-Ukraine war and socially responsible investing, this study aims to investigate whether investment funds that prioritize sustainability and have higher social responsibility standards exhibit distinct investment behaviors compared to those that do not. Specifically, we aim to explore whether such funds demonstrate a stronger commitment to social criteria as a value driver and are less likely to alter their investment strategies in response to the war in Ukraine. Building upon the above-mentioned finding and considerations, we propose the following hypotheses:

H1: After the breakout of the war, high social responsibility funds experienced a lower decrease in their position of A and B graded companies, companies that decided to leave Russia, than low social responsibility funds.

H2: After the breakout of the war, high social responsibility funds experienced a higher decrease in their position of D and F graded companies, companies that decided to stay in Russia, than low social responsibility funds.

H3: The funds' decision to sell companies is primarily based on the companies' performance, rather than the decision to leave or stay in Russia.

### **3. Data**

All variable descriptions can be found in Appendix 1. All data is extracted for the period from 28.02.2021 until 31.12.2022 unless explained otherwise.

#### **3.1 Yale companies**

We begin with the Yale graded companies. The Yale grades represent 5 different categories of actions.

The highest grades given by Yale are A and B, which represent companies that have taken decisive action to withdraw from the Russian market. The category "Withdrawal" is given to Toyota, which shut down its St. Petersburg plant and canceled all imports of its vehicles. Airbnb has blocked bookings and all use of their products in Russia, earning it the B grade.

The C grade is given to companies that have partially exited the Russian market but are still operating in some capacity. Adobe, for example, has canceled all future products but continues to provide previous services in Russia.

The next grade is D, which represents companies that are buying time and have suspended their future investments in the Russian market but have not yet decided to stop operating in Russia completely. Nestle has been given the D grade, as it provides only essential products but not the majority of its goods to Russian consumers. The lowest grade given by Yale is F, which represents companies that continue operating in Russia without making any significant changes. Turkish Airlines is an example of such a company that has not suspended any operations in Russia and has been graded F.

The Yale grades provide a useful framework for understanding how companies have responded to the geopolitical tensions and economic sanctions in Russia. Our created categories of stayers (D and F grades), undecided (C grades), and leavers (A and B grades) reflect the varying degrees of action taken by these companies, highlighting the importance of the decision made by companies in times of crisis.

In order to avoid the daily changes in some of the companies' grades, only end-of-the-month grades are extracted. The grades are extracted from the Yale School of Management's website's archived data using the "Wayback Machine," a web archive tool. For the data extraction process, we selected specific dates and imported the relevant information into Excel. The period considered for data extraction is from March 31, 2022, when the website

became publicly available, until December 2022. Our approach follows the method used by Pajuste and Toniolo (2022), although we apply a distinct filtering process to the extracted and categorized data.

In order to examine how funds treated various companies prior to the invasion of Ukraine, we extend the Yale grades beyond the start of the invasion. Specifically, we use the first Yale grade for each company as the benchmark reaction to the invasion of Ukraine. This enables us to differentiate between the companies and funds and allows us to investigate whether funds treated them differently before the war began.

In total, we extracted 1394 company details from the Yale database, in 5 different categories. The variable  $\text{Grade}_{i,t}$  as the Yale assigned grade to company  $i$ , at the end of month  $t$ . We also create dummy variables, the value of 1 if the grades reflect the categories of  $\text{Leavers}_{i,t}$ ,  $\text{Stayers}_{i,t}$ , or  $\text{Undecided}_{i,t}$ , and zero (0) otherwise.

### **3.2 Company-specific data**

We use multiple sources and measures to investigate the impact of the Russian invasion. We looked at the 573 companies from the Yale grade list that are publicly traded and combined them with company-specific variables obtained through Refinitiv Eikon, in accordance with the methodology of Deng, Leippold, Wagner, and Wang (2022). The performance, relative pricing, and financial stability at the end of the previous fiscal year (2021) of each company are assessed with various measures, including the return on assets ( $\text{ROA}_{i,t}$ ), book-to-market ratio ( $\text{BTM}_{i,t}$ ), and leverage ( $\text{Leverage}_{i,t}$ ). Additionally, we extract the monthly stock returns, expressed as a percentage for each company at the end of the month for our sample period ( $\text{Company\_Returns}_{i,t}$ ). The returns are calculated by dividing the end of the month stock price with the start of the month stock price in US dollars.

### **3.3 Fund ownership data**

To examine the ownership changes in these companies, we use the Refinitiv Eikon section of company ownership. We use the fund shareholder history report for all companies and extract the percent position change in the number of shares held by a specific fund for the entire sample period. This metric (termed "percent position change") partially accounts for the market downturn and changes in company market valuations that occurred during the outbreak of the

invasion and allows us to focus directly on the decisions to sell, buy, or hold a company in any given month. To ensure consistency with previous research, such as Pastor, Stambaugh, and Taylor (2015) and Hartzmark and Sussman (2019), we exclude index funds from our sample. Only actively managed funds that hold these companies are considered.

We are able to obtain ownership data for 572 companies from the Yale list of companies. The variable  $\text{Change}_{j,i,t}$  is the percent position change in ownership in fund  $j$ , for company  $i$ , at the end of month  $t$ .

### **3.4 Fund rating data**

All fund rating data was retrieved from Morningstar, following the data extraction process of Hartzmark and Sussman (2019). We extract all actively managed fund social pillar scores for more than 6000 actively managed funds for each end of the month date in our sample period.

Morningstar (n.d.) explains that their ESG Social Pillar Ratings are calculated based on a proprietary methodology that assesses a fund's performance in areas related to social responsibility and ethical behavior. The methodology uses a combination of quantitative and qualitative analysis to assess a company's management of key social issues, such as labor practices, human rights, and community relations. The ratings consider a wide range of factors, including the company's policies, practices, and performance in these areas, as well as relevant regulatory and industry standards.

The results from the quantitative and qualitative analysis are combined to arrive at a final ESG score for the company. The ratings we use reflect the percentage of the total ESG score, which is made of the social pillar score. Simply put, a score of 25, 50, and 25 in the E, S, and G categories can be read as follows: the funds ESG score is a composite of 25% in the environmental pillar, 50% in the social pillar, and 25% in the governance pillar.

In order to categorize these social pillar scores, we follow a similar filtering process of Hartzmark and Sussman (2019) by using upper and lower bounds of all of the fund social pillar ratings for three different categories - high, average, and low social responsibility funds. Hartzmark and Sussman (2019) use the 25th and 75th percentile, which is our approach as well. We use the average rating in our sample period for setting the upper and lower bounds. Finally, we specify that a fund can be considered to be a high social responsibility fund if its rating in our

sample period was higher than 45.06 points (the social pillar score is more than 45.06% of its total ESG score); a low social responsibility fund had an average rating below 28.48 points (the social pillar score is less than 28.48% of their total ESG score); an average social responsibility fund is between 28.48 and 45.06 points (the social pillar score is between 28.48 and 45.06% of their total ESG score). Since several funds do not have ratings (N/A), but a few funds have a rating of zero, we include funds with a social pillar score of zero in our categorization.

Variable  $Fund\_S\_Pillar_{j,t}$  is the social pillar score for fund  $j$ , at the end of month  $t$ .  $High\_Social\_Responsibility_{j,t}$ ,  $Average\_Social\_Responsibility_{j,t}$ , and  $Low\_Social\_Responsibility_{j,t}$  are the dummy variables for the fund categories.

### **3.5 Data filtering and summary statistics**

We join all of the previously mentioned data by using R studio. We start off by linking the fund-specific data (the percentage position change in the Yale graded companies from Refinitiv and the Morningstar fund social pillar scores); we link both of the datasets by the unique fund ID and date combination.

We continue linking this data to the companies with the Yale grades, we link these datasets by the company name and date combination.

In order to filter out the unnecessary observations, we first filter out all the not available (N/A) values for the percentage position change. Then, we filter out all N/A values for the company specific variables, and companies that don't show up in the percent position change from Refinitiv.

After combining and filtering the data, we are left with 643,962 company-level observations, 293,081 of which are after the war broke out. These observations are divided into 111, 204, 85, 53, and 70 companies in the A, B, C, D, and F grades respectively. For these companies, there are total observations of 54,617 for A graded companies, 126,953 for B graded companies, 56,069 for C graded companies, 35,350 for D graded companies, and 20,092 for F graded companies.

If we look at the fund level observations, we have 223, 407, and 150 unique funds in the High, Average, and Low social responsibility categories, as well as 979 funds with no categories, that is funds, that are in the Morningstar database but do not have ESG scores. In total there are 51,945 observations for average social responsibility funds, 32,229 observations for high social

responsibility funds, 4,044 observations for low social responsibility funds, and 204,863 for no-category funds.

We summarize our dependent variable in Table 1, which examines the max, min, mean, median, and standard deviation of the percent position change in share ownership for our fund categories, Yale grades, as well as the combination of fund categories and Yale grades. We are immediately drawn to Panel B, which summarizes the average ownership change in the Yale grades. In this Panel, we see that only the D graded companies have a positive average change in ownership after the outbreak. Investigating this more, we see that this trend is driven by the consumer staples and healthcare industries. Both industries argue that they should stay in Russia due to humanitarian needs, thus we see a positive change in ownership, in industries where the revenues could remain fairly constant.

Panel C looks at the fund category and Yale grade observations and summarizes their change in ownership statistics. By focusing on the extreme points, the A and F grades, in both high and low social responsibility funds, we see that high social responsibility funds had a larger decrease in ownership in A graded companies than low social responsibility funds, but due to more observations, they have a lower standard deviation. Additionally, the high social responsibility funds also had a larger decrease in the change in ownership in F graded companies, but again had a lower standard deviation.

These initial results already show that there is a difference in both the Yale grades, as well as the fund categories, furthermore, by looking in depth at the fund and grade level, we see drastic differences in these summary statistics, which opens the door for further research.

**TABLE 1: SUMMARY STATISTICS**

This table shows the summary statistics for the main variable- percent position change in share ownership in the time period of February 2022-December 2022. Panel A summarizes the variable on the fund category level. Panel B examines the variable on the Yale grade level. Panel C shows the combined previous panels and summarizes the variable on the fund category and Yale grade level. All summary statistics are calculated after removing outliers.

Panel A: Summary Statistics for the Fund Categories							
Fund Category	Yale Grade	Obs	Max	Min	Mean	Median	Standard deviation
Average Social Responsibility	-	51,945	96.20%	-57.50%	-1.65%	-0.68%	16.60%
High Social Responsibility	-	32,229	96.20%	-57.50%	-2.41%	-1.01%	15.50%
Low Social Responsibility	-	4,044	96.20%	-57.50%	-2.97%	-1.43%	22.70%

Panel B: Summary Statistics for the Yale Grades							
Fund Category	Yale Grade	Obs	Max	Min	Mean	Median	Standard deviation
-	A	54,617	96.20%	-57.50%	-0.18%	0.00%	21.60%
-	B	126,953	96.20%	-57.50%	-2.58%	-1.82%	19.40%
-	C	56,069	96.20%	-57.50%	-1.95%	-1.20%	18.20%
-	D	35,350	96.20%	-57.50%	1.60%	0.00%	17.50%
-	F	20,092	96.20%	-57.50%	-5.80%	-3.91%	20.90%

Panel C: Summary Statistics for the Fund Categories and the Yale Grades							
Fund Category	Yale Grade	Obs	Max	Min	Mean	Median	Standard deviation
Average Social Responsibility	A	9,259	96.17%	-57.50%	0.03%	0.00%	17.95%
Average Social Responsibility	B	21,232	96.17%	-57.50%	-2.43%	-1.52%	16.97%
Average Social Responsibility	C	9,683	96.17%	-57.50%	-1.83%	-0.83%	15.09%
Average Social Responsibility	D	7,352	96.17%	-57.50%	0.42%	0.00%	13.03%
Average Social Responsibility	F	4,419	96.17%	-57.50%	-4.45%	-2.92%	19.05%
High Social Responsibility	A	4,939	96.17%	-57.50%	-1.62%	-0.13%	18.86%
High Social Responsibility	B	16,282	96.17%	-57.50%	-2.87%	-1.61%	15.85%
High Social Responsibility	C	6,645	96.17%	-57.50%	-2.58%	-1.35%	12.50%
High Social Responsibility	D	2,763	96.17%	-57.50%	1.34%	0.00%	11.73%
High Social Responsibility	F	1,600	96.17%	-57.50%	-6.00%	-2.92%	16.94%
Low Social Responsibility	A	1,126	96.17%	-57.50%	0.06%	0.00%	21.65%
Low Social Responsibility	B	1,826	96.17%	-57.50%	-3.99%	-2.63%	22.63%
Low Social Responsibility	C	612	96.17%	-57.50%	-4.11%	-2.62%	23.23%
Low Social Responsibility	D	293	66.77%	-57.50%	-4.94%	-2.54%	20.71%
Low Social Responsibility	F	187	96.17%	-57.50%	-4.58%	-3.22%	28.13%

## 4. Empirical analysis

### 4.1 Do socially responsible funds invest in socially responsible companies?

Firstly, we adopt a methodology similar to Pastor, Stambaugh, and Taylor (2015) for our regression analyses. More specifically, we use fund-fixed effects and time-fixed effects in our analysis. This approach enables us to control for cross-sectional differences among funds and to maintain consistent time variation across all funds. Additionally, we incorporate company-fixed effects in our analysis to account for changes in company-specific variation. By doing so, we can better understand the impact of funds' decisions in individual companies, while controlling for any factors that may be unique to the companies. Our use of this methodology is consistent across all regressions performed in this study, allowing for a rigorous and comparable evaluation of the results.

We start by examining how company decisions and fund categories explain the percentage change in ownership. In particular, we aim to investigate the reaction to the release of the Yale grades. Our methodology is similar to that used by Hartzmark and Sussman (2019), where the authors look at how different sustainability levels affect the investments in those funds.

The analysis focuses on the outbreak period (February 2022 to December 2022) to observe the direct impact of the actual Yale grades. We exclude the dummy variable for average social responsibility funds, as well as the undecided companies (partially withdrawing from the Russian market), to avoid overestimating our variables. The regression model can be seen in Equation 1.

*Equation 1:*

$$\begin{aligned} Change_{j,i,t+1} = & \beta_0 + \beta_1 * dChange_{j,i,t} + \beta_2 * High\_S_{j,t} + \beta_3 * Low\_S_{j,t} + \beta_4 * Leavers_{j,t} + \\ & + \beta_5 * Stayers_{i,t} + \beta_6 * Company\_Returns_{i,t} + \beta_7 * \log(Company\_MktCap_{i,t}) + \varepsilon_{j,i,t} \end{aligned}$$

We perform regression analysis using the fund category high, average, and low social responsibility for fund  $j$ , in month  $t$ ; the company decisions to stay, leave, or undecided how to respond to Russia for fund  $i$ , in month  $t$ ; as well as lagged % position change, the returns, and market cap for company  $i$ , in month  $t$  as the independent variables; we use the fund % position change of fund  $j$ , in month  $t+1$ , as the dependent variable. We use the forward value of the %

position change in order to see the reaction to the previous month's Yale grades and the performance of the companies.

Our main focus is to explore the relationship between fund social pillar ratings and fund company ownership across all Yale grades, in order to assess whether socially responsible funds directed their resources towards companies that demonstrated social responsibility (by exiting the Russian market) during the war in Ukraine. This analysis aims to provide insights into the extent to which socially responsible funds acted in a socially responsible manner.

Table 2 presents the findings from equation 1, where we investigate the impact of company decisions to respond to Russia, on the changes in share ownership for high social responsibility funds, low social responsibility funds, and average social responsibility funds. We examine the results for the reaction of these funds to the leavers, stayers, and undecided.

Panel A, Column 1 analyzes the effect of leavers and stayers, high and low social responsibility funds on the percentage position change in share ownership, we omit the average social responsibility funds and the undecided. The results suggest that the stayers in the Russian market experienced a lower percentage position change in share ownership than the leavers, compared to the undecided companies. We find that high social responsibility funds have a slightly higher negative effect on the percentage change in share ownership than low social responsibility funds, compared to average social responsibility funds.

We continue by adding the lagged value of the percentage position change, company stock returns, and the natural logarithm of the company market capitalization in Column 2. The results show that high social responsibility funds have a decrease of 1.08% in the percentage change in ownership compared to average social responsibility funds, while low social responsibility funds have a decrease of 1.46%, although not statistically significant for the low social responsibility funds. We also find that the leavers and stayers in the Russian market experienced a decrease in the percentage change in share ownership of 7.17% and 2.51%, respectively, both significant at the 99% level. Finally, a 1 percentage point increase in the previous percentage position change, as well as monthly stock returns, indicates an increase of 52.49% and 46.01%, respectively, in the percentage position change; we also see that larger companies are linked with more selling.

In Panel B, we also test for joint significance by performing the F-test of the high and low social responsibility funds, the leaver and stayer companies, and all variables. We find that the

test's p-values are close to zero, and we can reject all three tests at the 99% confidence interval and say that there is a different effect of the variables tested.

Finally, we perform the regression in Table 2, Panel A, Column 2, by pooling the standard errors in order to test for multicollinearity with the variance inflated factor (VIF). We receive the results and confirm that none of the variables have a VIF score of above 1.7, indicating low to non-multicollinearity.

**TABLE 2: FUND SHARE OWNERSHIP CHANGES AFTER THE WAR OUTBREAK**

This table shows the reaction to the Yale grades, grouped by A&B, D, and D&F grades, by socially responsible fund categories. The dependent variable is the percent position change in share ownership, which is regressed on the grouped Yale grades and the fund categories in column 1; the lagged change, the company monthly stock returns, and the market capitalisation of the company in column 2. The time period for all columns is from February 2022 to December 2022. Standard errors are clustered by month, fund and company fixed effects. \*, \*\*, and \*\*\* indicates significance at the 10%, 5%, and 1% levels, respectively. Panel A shows the regression results, Panel B shows the results for the joint hypothesis tests (F-tests).

Panel A: Baseline Percent Position Change in Share Ownership Regression			
	1	2	
Leavers	-0.0060	-0.0717***	
Stayers	-0.0391***	-0.0251***	
High Social Responsibility	-0.0080***	-0.0108***	
Low Social Responsibility	-0.0048	-0.0146	
dChange		0.5249***	
Company Returns		0.4601***	
log(Company Market Cap.)		-0.0104***	
Observations	293,081	286,983	
R2	0.0001	0.5328	
F Statistic	7.9342***	41,051.57***	
Company x Fund x Time FE	Yes	Yes	
Panel B: F-Tests results			
	1	2	3
Leavers : Stayers	0.0000***		
High Social Responsibility : Low Social Responsibility		0.0000***	
All Variables			0.0000***

## 4.2. Within grade and fund analysis

The results presented above suggest that there is an overall divestment from the market, more specifically we see that institutional investors predominantly divested from companies that chose to exit the Russian market (the leavers). To further analyze these trends, we will examine the unique interactions between companies and funds in the next regression analysis. We will investigate the interaction between high and low social responsibility funds and their investments in the leavers, stayers, and undecided. Additionally, we also acknowledge the interactions between average social responsibility funds and their investments in the leavers, stayers, and undecided. To perform this analysis, we create dummy variables to identify whether a fund falls into a specific category and whether the company they owned belongs to a particular Yale grade grouping. This approach will enable us to investigate the direct fund and company interactions.

In order to analyze the effect of the unique fund and company observations, we use the following regression:

*Equation 2:*

$$\begin{aligned} \text{Change}_{j,i,t+1} = & \beta_0 + \beta_1 * \text{HighSLeavers}_{j,i,t} + \beta_2 * \text{HighSStayers}_{j,i,t} + \beta_3 * \text{HighSUndecided}_{j,i,t} + \\ & + \beta_4 * \text{LowSLeavers}_{j,i,t} + \beta_5 * \text{LowSStayers}_{j,i,t} + \beta_6 * \text{LowSUndecided}_{j,i,t} + \\ & + \beta_7 * \text{AvgSLeaver}_{j,i,t} + \beta_8 * \text{AvgSStayers}_{j,i,t} + \beta_9 * \text{dChange}_{j,i,t} + \\ & + \beta_{10} * \text{Company>Returns}_{i,t} + \beta_{11} * \log(\text{Company\_MktCap}_{i,t}) + \epsilon_{j,i,t} \end{aligned}$$

Table 3 presents the outcomes of the unique interactions. The first Column displays the results for the interactions of high, low, and average social responsibility funds, and compares them to the average social responsibility funds and undecided companies. In the second Column, we add additional variables, including the lagged percentage position change, monthly stock returns of the company, and the natural logarithm of the company market capitalization.

By examining the results in Column 2, we can observe that the difference between high and low social responsibility funds that sold the leavers is a mere 0.23 percentage points. More precisely, high and low social responsibility funds that owned the leavers have an effect of 11.41% and 11.64% lower position change, relative to the average social responsibility funds that held the undecided. For the stayers, high social responsibility funds had nearly double the effect on the change in share ownership compared to low social responsibility funds. Compared to the

average social responsibility funds that held the undecided companies, high social responsibility, and the stayers had a 3.12% lower percent position change, and low social responsibility and the stayers had a 1.69% lower percent position change. However, the coefficient for the low social responsibility funds is not statistically significant.

As expected, the company stock returns and lagged percent position change in share ownership had a positive and significant effect on the dependent variable. Interestingly, market capitalization lost its significance and became positive. By conducting joint hypothesis testing for all variables, as well as separate joint hypothesis tests between HighSLeavers and HighSStayers, and the joint hypothesis between LowSLeavers and LowSStayers, we can reject the null hypothesis at the 99% significance level for all three tests and confirm that no two variables have the same effect. Panel B examines the F-test between different variables and indicates the p-values of these tests. In addition to the F-test, we again perform a pooled regression to test for multicollinearity, and again confirm that none of the variables in Table 3, Panel A, Column 2, have a VIF score above 1.1, again indicating low to non-multicollinearity.

We in fact see an effect of the Yale grades, although, by looking at the R squared, we see that the regression explains more variation only after supplementary variables such as the stock returns, lagged change in position, and the size of the company are added. We argue that the social responsibility aspect is not the main driver behind the fund decisions and continue expanding on the economic justifications behind these findings.

**TABLE 3: WITHIN GRADE AND FUND ANALYSIS AFTER THE WAR OUTBREAK**

This table shows the reaction to the Yale grades by the fund category and Yale grade interactions. The dependent variable is the percent position change in share ownership, which is regressed on the high, low and average social responsibility fund and Yale grade interactions in column 1; and the lagged change, company stock returns, and the market capitalisation of the company in column 2. The time period for all columns is from February 2022 to December 2022. Standard errors are clustered by month, fund and company fixed effects. \*, \*\*, and \*\*\* indicates significance at the 10%, 5%, and 1% levels, respectively. Panel A shows the regression results, Panel B shows the results for the joint hypothesis tests (F-tests).

Panel A: Within Grade and Funda Analysis Regression			
	1	2	
HighSLeavers	-0.0964***	-0.1141***	
HighSStayers	-0.0547***	-0.0312**	
HighSUndecided	-0.0148**	-0.0155***	
LowSLeavers	-0.1014***	-0.1164***	
LowSStayers	-0.0358	-0.0169	
LowSUndecided	-0.0202	-0.0198	
AverageSStayers	-0.0525***	-0.0244***	
AverageSLeavers	-0.0897***	-0.1021***	
dChange		0.5326***	
Company Returns		0.4238***	
log(Company Market Cap.)		0.0016	
Observations	293,081	286,983	
R2	0.0001	0.5327	
F Statistic	3.4819***	26,117.50***	
Company x Fund x Time FE	Yes	Yes	
Panel B: F-Tests results			
	1	2	3
HighSLeavers : HighSStayers	0.0000***		
LowSLeavers : LowSStayers		0.0000***	
All Variables			0.0000***

### 4.3 Economic justification

Although the Yale grades and the social responsibility categories show some effect on the change in share ownership, most actively managed funds look at ESG measures only as a supplement to company performance depending on their investment horizon, as discussed by Goldman and Slezak (2003).

Table 4 examines the companies' ROA, the BTM ratio, and the Leverage. The ROA is used to compare the profitability of the Yale companies, the BTM is used to measure the book value of the company to its market price, and leverage is used to measure the financial strength of the company. We also look at the average monthly stock returns.

Table 4, Panel A presents the analysis of the financial performance of companies owned by high and low social responsibility funds. At the end of 2021, the companies held by high social responsibility funds displayed a higher average ROA, by 3.86 percentage points, in contrast to the low social responsibility funds. Furthermore, the BTM ratio for high social responsibility funds is comparatively lower by almost half; the average BTM ratio for high and low social responsibility funds is 0.21 and 0.41, respectively. The BTM ratio implies that the relative market capitalization to book value is higher for the companies held by high, rather than low social responsibility funds. A further look at the high social responsibility funds' industry-wise holdings reveals that  $\frac{1}{3}$  of the holdings are in the Information Technology sector, which underwent a significant boom period during and after Covid-19. This sector concentration likely accounts for the low BTM ratio. Finally, we look at the financial stability of the companies owned by the funds, by examining the average leverage of the companies. The companies owned by high social responsibility funds display a lower debt level by 2.9 percentage points compared to those owned by low social responsibility funds. This finding may indicate a higher level of financial stability among these companies held by high social responsibility funds.

By analyzing Panel B, we examine the company-level performance of the leavers, stayers, and undecided. We find that companies that opted to leave exhibited a higher average ROA by 1.63 percentage points compared to those that chose to stay. Furthermore, we see that the industry composition of the leavers is about one-third in the technology sector, which again can account for the slightly smaller BTM ratio observed. We also see that the companies that chose to exit were generally more financially stable at the end of 2021. Additionally, we observe that the leavers outperformed the stayers in the previous year by over two-fold, by looking at

their average monthly stock returns. These findings suggest that companies that opted to exit the Russian market were, on average, financially more robust and exhibited better performance compared to those that decided to remain before the war broke out.

Finally, turning to the fund category and Yale grade interactions with company performance, we analyze Table 4, Panel C. We see that the companies that were most frequently sold by high social responsibility funds (compared to the average social responsibility funds that held the undecided companies), namely the leavers, displayed higher profitability. Specifically, these companies rank second among the most profitable companies, on average, within all interactions. These companies also have the lowest BTM ratio (0.21). Additionally, they exhibit the third lowest debt ratio. Comparing the leavers held by high social responsibility funds with the stayers, we find that they were 27% more profitable in terms of ROA, had the same BTM ratio, and exhibited an 18% lower debt ratio. Moreover, the leavers held by high social responsibility funds outperformed the stayers, with the average monthly stock return being 65% higher (average monthly stock returns for the leavers and stayers held by high social responsibility funds were 1.50% and 0.91%).

These findings show that the companies that were sold the most by high social responsibility funds (leavers), displayed superior financial performance compared to the stayers.

Looking at the low social responsibility funds, the leavers had a ROA that was more than 2.8 percentage points larger than that of the stayers at the end of 2021. Comparing the BTM for the leavers and stayers for this group of funds, we see that the leavers had a 0.21 point lower BTM than the stayers. Interestingly, the low social responsibility funds and the leavers actually had higher levels of debt. To be precise, the leverage for the leavers was 19% higher than for the stayers. Additionally to these differences, the leavers barely underperformed the stayers by 0.01 percentage point, with the average monthly stock returns being 1.51%, compared to 1.52%.

These findings highlight the contrast in investment strategies of high and low social responsibility funds. While both types of funds sold more of the companies classified as leavers (compared to the average social responsibility funds and the undecided), we see that these companies were more profitable on average, funds were willing to pay more for their true value, these companies were more financially stable, and performed better in the stock market. Overall, by performing this analysis, we shed light on the importance of company performance and social responsibility factors in investment decision-making.

**TABLE 4: COMPANY PERFORMANCE**

This table presents summary statistics for the performance measures at the end of 2021. Panel A examines the annual average performance measures at the end 2021 on the fund category level. Panel B shows the annual average performance measures at the end 2021 on the grouped Yale grade level. Panel C combines the previous panels and summarizes the performance measures for the fund categories and grouped Yale grades.

Panel A: 2021 Performance Measures for the Fund Level					
Fund Category	Yale Grade	ROA	BTM	Leverage	Average Company Returns
Average Social Responsibility	-	8.89	0.42	27.10	1.16%
High Social Responsibility	-	11.50	0.21	27.00	1.52%
Low Social Responsibility	-	7.64	0.41	29.90	1.46%

Panel B: 2021 Performance Measures for the Grouped Yale Grade Level					
Fund Category	Yale Grade	ROA	BTM	Leverage	Average Company Returns
-	Leavers	9.71	0.37	26.70	1.41%
-	Stayers	8.08	0.38	28.70	0.70%
-	Undecided	10.50	0.33	31.50	1.70%

Panel C: 2021 Performance Measures for the Fund and Grouped Yale Grade Level					
Fund Category	Yale Grade	ROA	BTM	Leverage	Average Company Returns
Average Social Responsibility	Leavers	9.14	0.45	26.50	1.34%
Average Social Responsibility	Stayers	8.27	0.40	26.40	0.35%
Average Social Responsibility	Undecided	8.90	0.40	30.20	1.63%
High Social Responsibility	Leavers	11.50	0.21	25.10	1.50%
High Social Responsibility	Stayers	9.10	0.21	31.00	0.91%
High Social Responsibility	Undecided	13.00	0.22	30.10	2.01%
Low Social Responsibility	Leavers	8.37	0.39	31.00	1.51%
Low Social Responsibility	Stayers	5.51	0.60	26.10	1.52%
Low Social Responsibility	Undecided	5.42	0.36	26.80	1.12%

#### 4.4 Pre-period analysis

To account for pre-existing effects and trends of all fund categories, we turn to our last part of the analysis. Figure 1 plots the average percent position change in share ownership for all companies both before and after the published Yale grades. The plots are categorized on the fund social responsibility level. Appendix 2 to Appendix 4 look at the same plots for the leavers, stayers, and undecided. In all plots, the war breakout phase is colored by a red vertical line on the 28th of February, 2022 (the end of the breakout month).

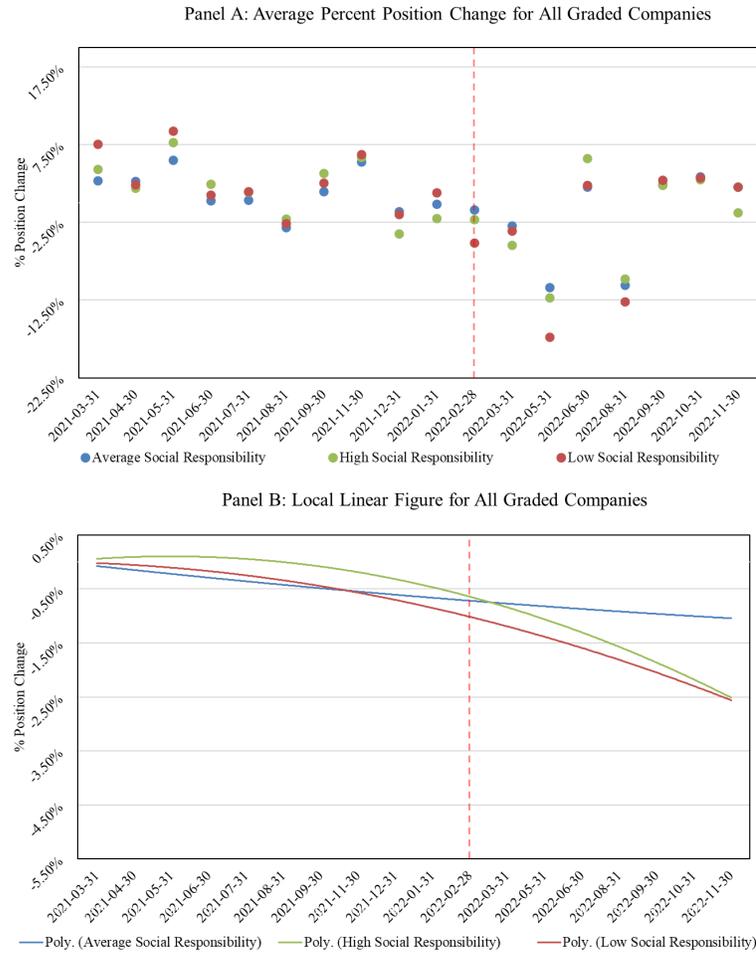
Upon examining Panel A of Figure 1, we observe a slight increase in variation for all funds following the war breakout. More specifically, the standard deviation of the average change in ownership in the outbreak phase increased by 1.99, 2.12, and 1.24 percentage points for the average, high, and low social responsibility funds. Additionally, Panel B shows a divergence for both high and low social responsibility funds after the war broke out.

We continue exploring the pre-war phase by following a similar approach to Hartzmark and Sussman's (2019) methodology, and explore this pattern further in Table 5. Specifically, we conduct the same regression as presented in Table 3, Panel A, Column 3, but for the pre-war phase. To achieve this, we use identical variable interactions and supplementary variables but limit the time period from March 2021 to January 2022. To see these effects in the pre-war phase, we match the initial Yale grades to the previous months before the war's outbreak for the same funds that held a position in the companies post-breakout.

By comparing the outcomes of the pre-war and outbreak phases (Column 1 and Column 2), we observe that none of the interactions exhibit a significant impact on the percentage position change. Additionally, the interactions of HighSLeavers and LowSLeavers show a positive effect in the pre-war phase; however, this effect is not statistically significant. We also find that the company's size has a significantly positive effect in the pre-war phase, compared to the outbreak phase.

Once more we find that the monthly returns of the companies have a positive and statistically significant impact, with a 3.5 percentage point larger effect in the pre-war phase than in the outbreak phase.

While matching the companies to the pre-war phase allows us to see the same interactions in the previous months, there is a risk that we exclude variables that could be relevant in this phase.



**Figure 1. % position change by month.** This figure shows the average percent position change by month controlling for time x fund x company fixed effects. Panel A shows the average variable for each month and Panel B shows a local linear plot. Both panels are colored based on the fund categories.

**TABLE 5: WITHIN GRADE AND FUND ANALYSIS BEFORE THE WAR OUTBREAK**

This table shows the reaction to the Yale grades by the fund category and Yale grade interactions before and after the war broke out. The dependent variable is the percent position change in share ownership, which is regressed on the high, low and average social responsibility fund interactions with the Yale grades and the lagged change, company stock returns, and the market capitalisation of the company. Columns 1 shows the regression results before the war broke out, while column 2 shows the regression results from Table 3, column 3, after the war broke out. Standard errors are clustered by month, fund and company fixed effects. \*, \*\*, and \*\*\* indicates significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Within Grade and Funda Analysis Regression		
	Pre-war	Outbreak
HighSLeavers	0.0172	-0.1141 ***
HighSStayers	-0.0121	-0.0312 **
HighSUndecided	-0.0075	-0.0155 ***
LowSLeavers	0.0188	-0.1164 ***
LowSStayers	-0.0215	-0.0169
LowSUndecided	0.0231	-0.0198
AverageSStayers	-0.0024	-0.0244 ***
AverageSLeavers	0.0235	-0.1021 ***
dChange	0.5156 ***	0.5326 ***
Company Returns	0.4606 ***	0.4238 ***
log(Company Market Cap.)	0.0981 ***	0.0016
Observations	314,199	286,983
R2	0.5167	0.5327
F Statistic	27,094.98 ***	26,117.50 ***
Company x Fund x Time FE	Yes	Yes

## 5. Discussion

In this research we aim to explore how companies' decisions of leaving or staying in the Russian market are treated by high and low social responsibility funds after the outbreak of the war in Ukraine in the period from February 2022 to December 2022. The main aim of this study is to see if high social responsibility funds, compared to low social responsibility funds, acted more positively towards the companies that opted to leave Russia, and acted more negatively towards the ones that stayed.

Our main findings reveal that there is a minor difference between high and low social responsibility funds and their reaction to the companies that exited Russia. The effect of the high social responsibility funds is 0.22 percentage points lower than the one of low social responsibility funds. We find this difference to be negligible and not a worthy difference that accepts our first hypothesis.

By looking at the companies that opted to stay, we argue that high social responsibility funds had a difference in their behavior. We find that there is almost twice as large a difference in the companies that stayed in Russia, between high and low social responsibility funds. To be precise, high social responsibility funds can be associated with a 3.11% decrease in the change in ownership, while low social responsibility funds can be associated with a 1.64% decrease in the change in ownership. These findings conform to our second hypothesis.

Our results align with those of Hartzmark and Sussman (2019) as we find evidence that investors tend to focus on extreme points more negatively. Similar to findings about investor focus on globe ratings (Hartzmark and Sussman, 2019), we see that investors focus more on the companies that left or stayed in Russia, compared to those who simply scaled back (undecided). Additionally, we argue that the funds tend to respond to the companies decisions depending on the personal investment costs, as indicated in studies by Pedersen, Fitzgibbons, and Pomorski (2020) and Hart, Thesmar, and Zingales (2022).

By further investigating the previous financial performance of these fund and company subgroups we find that most of the selling can be linked to companies that performed better during 2021. We find that the companies that left Russia had higher ROA (by 1.63 percentage points), investors were willing to pay more for these companies in the recent past, they had lower debt levels (2 percentage points lower), and these companies experienced higher monthly stock returns (0.71 percentage point higher). We also find that the high and low social responsibility

funds sold the outperforming companies more. We argue that the war allowed institutional investors to take profits during turbulent times and shift away from the volatility of equity markets. Exiting equity markets would allow funds to take a neutral cash position or shift to more stable investments, like bonds. These findings indeed confirm our third hypothesis, that most of the institutional investor decisions were driven by past performance, rather than the decision to respond to the war. These findings align with Pedersen, Fitzgibbons, and Pomorski (2020), who state that investors want to maximize their financial gains.

Finally, we confirm that the effect of the social responsibility funds and companies decisions are not the same throughout our sample period. We find this by testing the pre-war phase for the same fund and company groups as the outbreak period. We find that not only do the coefficients change, but we also find that the coefficients become statistically insignificant in explaining the change in ownership.

## **6. Limitations**

### **6.1. Companies**

The list of the companies gathered by professor Jeffrey Sonnenfeld and the Yale research team plays a crucial role in our analysis. While some companies have changed their mind regarding their decision, most companies stand by their initial decisions of staying, leaving, or partially scaling back. In our research, we perform regressions on a monthly basis that excludes the changes in some company decisions. Furthermore, since we employ company and time-fixed effects, we might exclude some variations in the Yale grading system.

Additionally, we are not able to observe the current financial performance of companies, since most of the measures are published quarterly, which limits us to look at the past performance of the companies summarized by professor Jeffrey Sonnenfeld and the Yale Research Team.

### **6.2 The fund ratings**

We have extracted more than 25,000 unique funds that own the Yale graded companies. For these funds, we use the Morningstar ratings, which usually do not change on a monthly basis. Since we are using monthly regressions with the fund and time-fixed effects, we assume that the ratings of the funds do not change over our sample period. We believe that it is a justifiable assumption as fund ESG scores are not very volatile. Meaning that funds constantly have low, high, or average social responsibility values, therefore we claim that over months funds have consistent high, average, and low social responsibility values.

Additionally, using Morningstar ratings limits us to only one specific social pillar fund valuation, we are limited to using a sample of an unbalanced number of high, average, and low social responsibility funds. We try to test this limitation by performing joint hypothesis testing, whose results are favorable. We argue that by performing these tests this limitation is taken care of.

### **6.3 Funds**

We have studied funds only from the social responsibility perspective and due to the limited time for our thesis, we could not study the behavior of funds. More specifically, the natural investing biases of high social responsibility versus low social responsibility. We believe examining the natural investing biases can be a further research area.

## 7. Conclusion

Since the early days of the war, numerous countries, companies, and individuals have taken action in support of Ukraine, ranging from government to private sanctions, including millions of dollars in donations. This collective support has been referred to as social action by President Zelenskyy. This study examines the reaction of active funds with varying levels of social responsibility, namely high, average, and low, to the Yale list of companies. Our research suggests that investors tend to prioritize performance over social responsibility, and this plays a crucial role in their decision-making after the war started. The study further reveals that better-performing and more stable companies choose to leave the Russian market. We further see that there is a difference between low and high-social responsibility funds and how they react to the leavers and stayers. All investors have less favorable treatment, in terms of the percent position change in ownership, to those who exit Russia than those who remain. Finally, we find that these differences are mainly driven by company-based performance and profit-taking on the fund level.

These findings are consistent with prior research, indicating that investors tend to prioritize extreme measures, such as the leavers and stayers, and support company decisions until their personal investment costs are affected.

The implications of our findings extend to policies and business practices. Specifically, our study underscores the need for regulators to consider the provision of incentives and measures that promote socially responsible behavior among companies, particularly in unanticipated and complex situations such as the war in Ukraine. Additionally, from a business perspective, our findings, together with our reviewed literature, highlight the importance of effectively communicating social responsibility actions to investors, given that the benefits of such actions may not be immediately reflected in short-term financial performance metrics. Taken together, these findings underscore the need for both regulatory and corporate actors to adopt a more nuanced and proactive approach to promoting social responsibility during turbulent times.

The findings of our paper provide space for further research, specifically focusing on the investment patterns of institutional investors following the outbreak of war. Our study primarily investigates the response of actively managed funds in the equity markets to corporate actions taken against Russia, and thus, other financial markets are not explored. A comprehensive

analysis of additional financial markets could provide more accurate conclusions regarding whether the war significantly impacted the outlook and strategy of institutional investors. Moreover, our study does not consider the changes in fund flows, which could significantly affect the investment strategy of funds. Finally, examining how sustainability measures affect fund flows during the sample period of our study may reveal whether institutional investors' sustainability measures are more resilient to crises on an individual investor level.

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## 9. Appendices

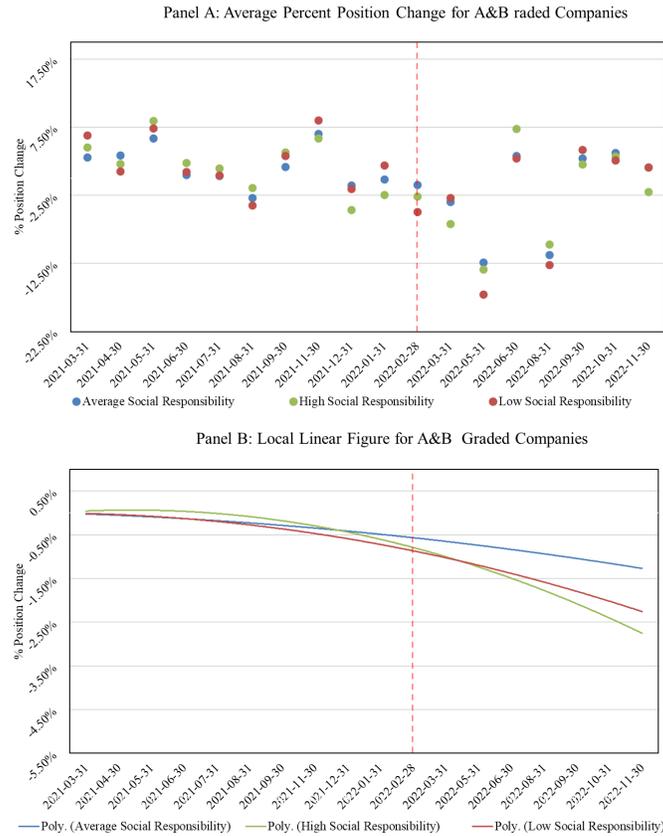
Appendix 1: Variable descriptions and sources

<b>Variable</b>	<b>Description</b>	<b>Source</b>
Average Social Responsibility	A dummy variable indicating whether the fund social pillar score meets a certain threshold	Morningstar
AverageSLeavers	A dummy variable indicating whether the fund has the Average Social Responsibility category and the observation is within the companies that left Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
AverageSStayers	A dummy variable indicating whether the fund has the Average Social Responsibility category and the observation is within the companies that stayed in Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
AverageSUndecided	A dummy variable indicating whether the fund has the Average Social Responsibility category and the observation is within the companies that decided to partially leave and stay Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
Change	% position change in the number of shares owned by the funds	Refinitiv Eikon
Company_Leverage	Company leverage at the end of 2021	Refinitiv Eikon
Company_MktCap	Company end-of-the-month market capitalisation in US\$	Refinitiv Eikon
Company_BTM	Company book to market ratio at the end of 2021	Refinitiv Eikon

Company_Returns	Company end-of-the-month stock returns	Refinitiv Eikon
Company_ROA	Company return on assets at the end of 2021	Refinitiv Eikon
dChange	Lagged % position change in the number of shares owned by the funds	Refinitiv Eikon
High Social Responsibility	A dummy variable indicating whether the fund social pillar score meets a certain threshold	Morningstar
HighSLeavers	A dummy variable indicating whether the fund has the High Social Responsibility category and the observation is within the companies that left Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
HighSStayers	A dummy variable indicating whether the fund has the High Social Responsibility category and the observation is within the companies that stayed in Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
HighSUndecided	A dummy variable indicating whether the fund has the High Social Responsibility category and the observation is within the companies that decided to partially leave and stay Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
Leavers	A dummy variable indicating whether the company decided to leave Russia	Jeffrey Sonnenfeld and Yale Research Team
Low Social Responsibility	A dummy variable indicating whether the fund social pillar score meets a certain	Morningstar

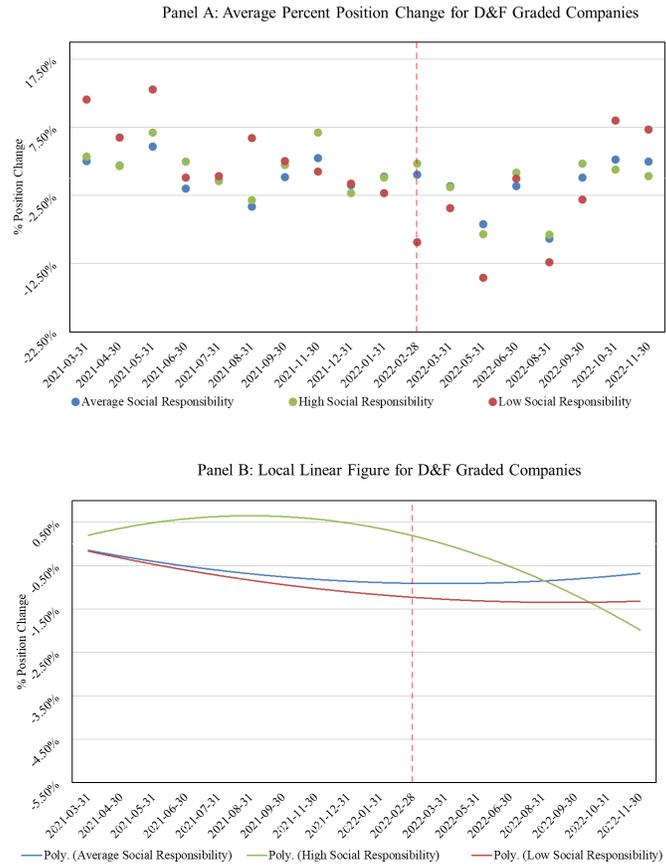
	threshold	
LowSLeavers	A dummy variable indicating whether the fund has the Low Social Responsibility category and the observation is within the companies that left Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
LowSStayers	A dummy variable indicating whether the fund has the Low Social Responsibility category and the observation is within the companies that stayed in Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
LowSUndecided	A dummy variable indicating whether the fund has the Low Social Responsibility category and the observation is within the companies that decided to partially leave and stay Russia	Morningstar and Jeffrey Sonnenfeld and Yale Research Team
Stayers	A dummy variable indicating whether the company decided to stay in Russia	Jeffrey Sonnenfeld and Yale Research Team
Undecided	A dummy variable indicating whether the company decided to partially leave and stay Russia	Jeffrey Sonnenfeld and Yale Research Team

## Appendix 2: Average % position change for A&B graded companies



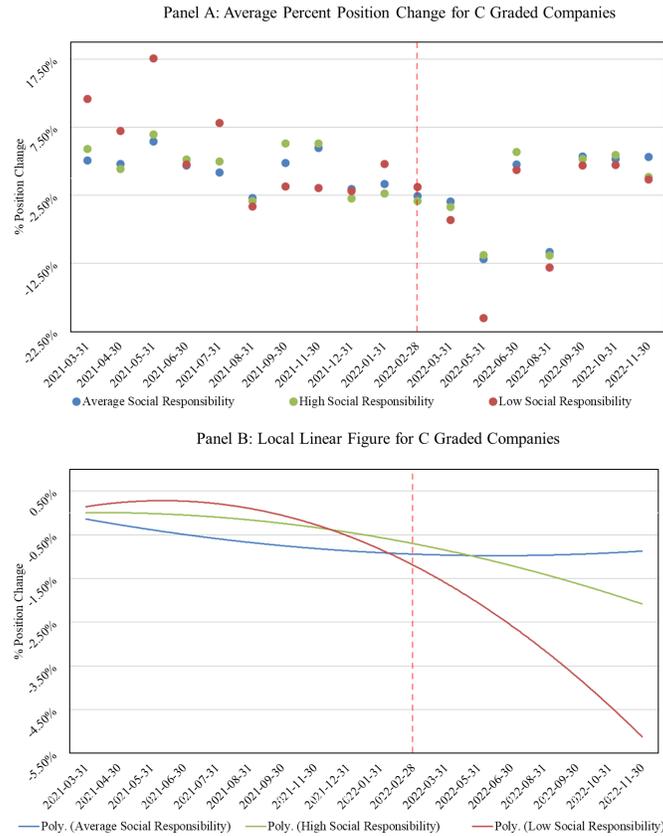
**Figure 2. % position change by month.** This figure shows the average percent position change by month for A&B graded companies (leavers) controlling for time x fund x company fixed effects. Panel A shows the average variable for each month and Panel B shows a local linear plot. Both panels are colored based on the fund categories.

### Appendix 3: Average % position change for D&F graded companies



**Figure 3. % position change by month.** This figure shows the average percent position change by month for D&F graded companies (stayers) controlling for time x fund x company fixed effects. Panel A shows the average variable for each month and Panel B shows a local linear plot. Both panels are colored based on the fund categories.

## Appendix 4: Average % position change for C graded companies



**Figure 4. % position change by month.** This figure shows the average percent position change by month for C graded companies (undecided) controlling for time x fund x company fixed effects. Panel A shows the average variable for each month and Panel B shows a local linear plot. Both panels are colored based on the fund categories.

## AI Acknowledgements

In this paper, we have used Grammarly and ChatGPT for grammar checking and paraphrasing purposes in some parts of our study. No direct text or facts were generated or used by ChatGPT without the input of previously written content by us.