

# Impact of the Russia-Ukraine Conflict on the Household Investment

Xingyu Wang \*

Department of business management, Southwestern University of Finance and Economics,  
611130, Chengdu, China

\* Corresponding author: xingyu.wang1@audencia.com

**Abstract.** The Russia-Ukraine conflict has continued for more than a year, and many scholars have researched this event from different perspectives. In this essay, the author would analyze the influence of the conflict from the angle of household investors. Two related questions are solved in this article. One is focusing on the change of portfolio of the household investors after this emergency happened, and the other concentrates on how different kinds of household investors would apply their strategies to make a judgment. This essay reviews previous research on emergencies and reckons that the Russia-Ukraine conflict would have disparate features. Solving the first question, the author shows the data of four main industries in China, drawing a common ground for these industries. Then conclude that there's a general trend of decreasing investment in the stock market and increasing investment in the bond market. The second question would be answered by reviewing the literature about the strategies of different household investors.

**Keywords:** Russia-Ukraine conflict, investment strategies, household finance.

## 1. Introduction

In 2022, the conflict between Russia and Ukraine started, which has had an enormous impact on the world economy since economic globalization has linked every country in the world tightly. In contemporary society, no nation can keep out of the affairs. Therefore, multitudes of researchers focus on this military conflict, pointing out that this conflict would be detrimental to the development of the global market, which would be against globalization. For instance, Qingqian He's research on the potential impact of the conflict between Russia and Ukraine on the global economy and trade, revealing Russia as a traditional country rich in resources would have a significant impact on some regions and industries, thereby affecting the global value chain and cause a different degree of influence to various countries in the world [1]. In addition, according to Ruth Endam Mbah and Forcha Wasum, countries unleashed sanctions on Russia causing serious damage to the economy of Russia. Nevertheless, the world economy has begun to be affected by this crisis too, which lead to an increase in the volatility of the market [2].

In a nutshell, many scholars hold the position that this conflict would have a negative influence on the global economy by pointing out the potential detrimental factors. To be more specific, the price of energy, volatility of the finance market, the trade boundaries between different nations, etc. After seeing these impacts, individual investors' confidence and their actions would be influenced hugely. Whether the household would invest more money in the market or sell off their stocks since this 'black swan event'. Whether the household would change its investment portfolio or remain unchanged. Whereas, most scholars choose to analyze this event from the perspective of macroscopic aspects, and this led to the relative lack of investigation in the field of microeconomics, which keeps a watchful eye on the moving direction of individual investors.

As a result, the author tries to explore the impact of the Russia-Ukraine conflict on household investment. To see how the choice of household's investment changes in this specific circumstance. This research would be conducive to understanding how investors react to political risk and make up for the relatively scarce research in this field. Perhaps the conclusion drawn by this essay can be applied to other regional conflicts that may happen in the future. What s more, the result of this essay perhaps can give a big picture to the government or investors about the individual performance in this

exceptional case, which assists them to make better decisions no matter investment or macroeconomic regulations, reducing damage to the 'black swan event'. Based on the previous research on the general market and individual investment decisions, putting forward the question of how the investment portfolio changed during this period and What the differences between various household investors are in this circumstance. This essay aims at uncovering household responses to the political risk in the age of globalization and different degree of reactions when it comes to households that have disparate features.

This essay would concentrate on these two basic questions and analyze them in the following order. First and foremost, previous literature would be reviewed. The second part, the method this essay used will be shown. For the third part, the first question would be discussed based on the data and the second question would be solved by reviewing different investors' strategies.

## 2. Literature Review

For the Russia-Ukraine conflict, the author classifies this event as an emergency. There has been plenty of research globally about the market fluctuations which are caused by unexpected events. Xiaolin Li has researched emergencies in the financial market. Xiaolin Li used the method of ARIMA to analyze the impact of the Wenchuan earthquake on the stock and bond market, discovering that the earthquake has a general negative influence on the stock market while positive for the bond market, which means that the investors would choose to lower their investment portfolio risk [3]. Tao Ping and Xianwei Liu used ten of the most influential news in 2011 as samples to analyze these global events' influence on the Chinese stock market and arrive at the conclusion that there's a negative correlation between the price of the stock and performance of the firms when emergencies happen [4]. Jussi Nikkinen and Mohammad M. Omran investigated the impact of the September 11 attack on the market's volatility and return and found that the return experienced a short-term sharp decrease and quickly return to normal. According to the different degrees the countries connected to the global market, the investors of different countries be affected variously [5]. Recently, the outbreak of COVID-19 triggered a lot of scholars' attention and Teng Ye put forward that no matter whether China's situation of being infected or the other nations' situations would negatively affect the return rate of the stock, the abroad situation was less influential than the domestic situations [6].

Most of the research in this field relates to a pandemic, conflict, terrorist attack, nature disaster, and so on, which shows that pessimistic emotion affects the market significantly. The loss caused by the pessimistic emotion is even more than the direct financial loss caused by emergencies [7]. That the object author aims at the household. However, since the household acts as a small unit and it may have some weaknesses which are hard to avoid. Households may be more likely to be affected by emergencies than large institutions. The holding ratio of institutional investors is negatively correlated with the volatility of the market price [4]. Therefore, for household finance, the psychological factor may play a more vital role when researchers analyze the small unit.

In addition, most of the emergencies just have a transitory effect on the investment. Nevertheless, the conflict between Russia and Ukraine has continued for more than a year and hasn't seen any sign of a truce. As a result, the impact of this conflict may be different from the other transient emergencies, which are brevity and distinct. This essay focuses on the household investors' reaction at first and then one further step about how the specific household investors would react to this conflict based on their strategies. In this order, the reader would have a progressive relationship to a better understanding of this event from the angel of the household, and provide some information about how to decrease the negative impact when some unexpected events happen.

### 2.1. Research Design

For answering the first question, based on the research data on China after the Russia-Ukraine conflict, the author selects the impact of this conflict on different industries to analyze. From the different perspectives of the industries, concluding that the different fields may have common ground,

which would impact household investment enormously. These are the major industries that will be scrutinized as follow: the energy industry, the transportation industry (which relates to the Belt and Road initiative), forestry, and agriculture.

For answering the second question, the author would use the literature review to show what different household investors attach great importance to and based on the result gets from the first question analyze how would these household investors react to this emergency.

### 3. Analysis

#### 3.1. Analysis of the Four Industries

##### 3.1.1. The energy industry

In Table 1, the data is collected from the CSI 300 index and Shenwan Petroleum. For the event window,  $T=0$  is the time when the conflict began, and for ten days a window phase.  $R_t$  is the average return rate to calculate the normal return rate in the widow phase.  $E(R_t)$  means the average return without consideration of disturbing terms.  $AR_i$  is the sum of the abnormal return in a window phase and  $CAR_i$  is the aggregation of all abnormal return [7]. From the change of  $CAR_i$ , after the conflict, a general decrease can be seen, though it may contain several rebounds. In the end, nearly decreased by 4.3%. This is probably because Russia’s output of petroleum is the second largest in the world and the household investors hold a pessimistic attitude toward the energy industry and some bad news would add fuel to the fire. For instance, the explosion of the Nord Stream would let the household investors lose confidence even further. The media attitude toward emergencies would have a significant impact on the CIS300 and their degree of attention would influence different industries turnover rate. According to the research of Xuanhua Hao on the media [8]. Therefore, the reasons for the decline of the energy industry might also have a close relationship with the attitude of the media.

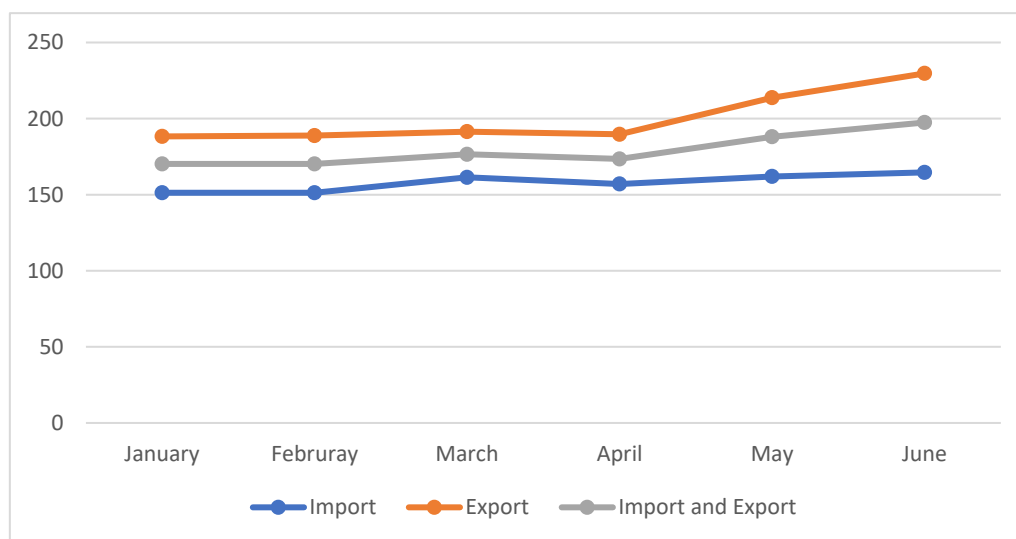
**Table 1.** Expected rate of return

Event window	$R_t$	$E(R_t)$	$AR_i$	$CAR_i$
-10	0.013813	-0.000626	0.014439	0.014439
-9	0.000754	-0.003982	0.004735	0.019174
-8	-0.004425	-0.005474	0.001049	0.020223
-7	-0.011996	0.007147	-0.019143	0.001080
-6	-0.000244	0.003203	-0.003448	-0.002368
-5	0.002226	0.002342	-0.000116	-0.002484
-4	0.011631	0.003719	0.007912	0.005492
-3	0.003978	-0.001226	0.005204	0.010633
-2	0.007575	-0.006773	0.014348	0.024981
-1	-0.012220	0.007178	-0.019398	0.005583
0	0.012828	-0.011138	0.023966	0.029548
1	-0.008347	0.006623	-0.014970	0.014578
2	0.007966	0.001967	0.005989	0.020568
3	-0.009656	0.005786	-0.015442	0.005125
4	-0.009912	-0.004339	-0.005573	-0.000448
5	0.011923	-0.002559	0.014482	0.014034
6	-0.020124	-0.006263	-0.013861	0.000173
7	-0.028962	-0.018194	-0.010769	-0.010595
8	-0.029540	-0.011019	-0.018522	-0.029117
9	-0.029864	-0.004494	-0.025370	-0.054487
10	0.021571	0.010108	0.011463	-0.043024

##### 3.1.2. Transportation

Fig.1 comes from the Belt and Road Portal. [9] During the outbreak of conflict, this event had little impact on the maritime silk road trade and the trade even flourished a few months later. However, according to the data, railway transportation declined sharply after the conflict. For the first half of

2022, the railway toward the west had decreased by 24% and the railway toward the east had decreased by 35%. Most investors assume transportation would be hindered since the trade boundaries intuitively. On the contrary, how to explain the increase in maritime trade? Perhaps because of the sanction of Europe and the United States, the surplus freights caused by the trade barrier then become more reliable on the Belt and Road initiative, leading to the freights which be supposed to transport to other countries more depend on this route. This might be the reason why an increase can be seen in a relatively short time. Therefore, household investors who choose the firms who don't disturb by sanctions wouldn't have a distinct impact. But for the general market, a disturbance caused by the sanctions can be seen.



**Figure 1.** Maritime Silk Road Trade Figures from 2022/01-2022/06

Photo credit: Original

### 3.1.3. Forestry

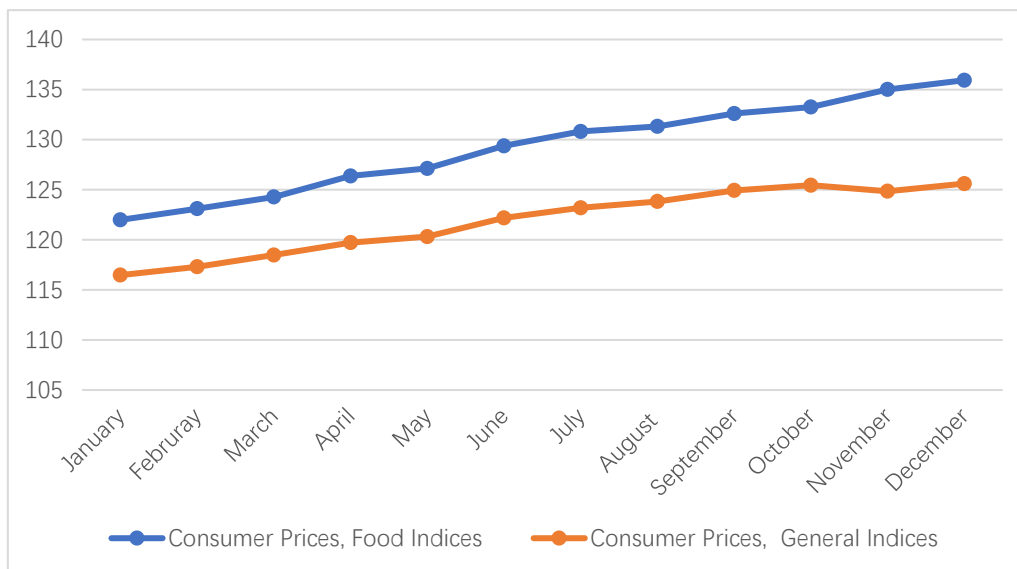
Table 2.'s data collects from the UN Comtrade database [10]. The data has shown that Russia's imports and export depend on China a lot. Russia exports a large number of its forest products to China. According to the research of Tian Gang, et al., the conflict has generated a negative influence on the forest products trade between China and Russia since the leave of the main manufacturers, the cancellation of certification of the wood, and part of the trade can't realize because Russia has been eliminated from SWIFT system [11]. After the conflict, the author anticipates that Russia may increase export to China since the sanction of European and the US, which leads to even higher dependence on China. Since Russia is the main country that exports forest products, largely relying on one country would increase the risk of not diversification. When the 'black swan event' happen again, it may have an enormous impact on household investors' expectation, which lead to a large scale of selling off.

**Table 2.** Interdependence degree of trade of various forest products

Products	Russia exports to China	Russia imports from China	China exports to Russia	China imports from Russia
Logs	66.64	0.00	0.00	7.13
Sawn timber	51.72	3.39	0.12	37.53
Wood-based-board	4.96	13.78	0.73	14.82
Wood pulp	69.33	0.07	0.09	5.03
Paper and paper products	16.17	12.89	1.24	5.53
Woodwork	11.44	29.26	0.72	5.59
Furniture	0.88	11.87	0.32	0.11
Softwoods	0.00	5.01	0.02	0.00
Other wood	0.89	1.30	0.41	0.03

### 3.1.4. Agriculture

Fig.2's data collects from FAO (Food and Agriculture Organization) [12]. In 2022, the price of agricultural products rose substantially, some products even arrived at the peak of many years. The research of Xuebing Bai et al., reveals the fact that the direct impact on China would be small since China can find substitute goods in other nations' markets, while the rising trend on the global market would indirectly huge influence the agriculture of China since the high cost [13]. As a result, although China doesn't rely on export from Ukraine and Russia a lot, the general price raising on the global market would let the agriculture industry of China get tough. For all the household investors, unwillingness to hold stock in the field of agriculture might be widespread.



**Figure 2.** FAO Consumer Prices Indices from 2022/01-2022/12

Photo credit: Original

### 3.2. Different Investment Strategies

For different household investors, they may concentrate on various rates to judge whether a stock is worthwhile to invest in or not. Value investors would buy the stock on sale, which means that they would buy the stock when the market price of the stock is lower than the real value of the stock [14]. PEG growth investors would use the PEG ratio to evaluate the growth of a firm, which makes up for the weakness of using the PE ratio [15]. DCF investors are based on the cash flow in the future and calculate the discounted asset value [16]. Index investors would buy the stock of big capital no matter what events happen and this means the index investor would get average performance of the market. The momentum investor, they're faced with high risk and high return. The momentum investor would pick the stock if the stock has a rising trend [14].

## 4. Summary

For the first question, after analyzing the data from the four industries, the author concludes that the market becomes more volatile than usual conditions and for most of the stocks, the prices have a trend of decreasing or not having a distinct impact. In this circumstance, the media may play an increasingly important role when it comes to household investors and is more likely to spread panic to small-unit investors. Although some markets experience a lift since the transfer of the trade, the general market would have an unpromising future and the household investors may have concerned about the risk of being so concentrate on a nation, rather than diversification. This conflict shows how every nation in the world is connected tightly. Even if the trade between Russia and Ukraine does not have a huge direct impact, the countries who are significantly being influenced by this conflict would conduct this impact on every country in the world. Generally speaking, all the household investors in

the market, may decrease the number of stocks that they hold, and increase the bond they hold. This would be beneficial for household investors to reduce the risk of their portfolio in this volatile market.

Based on the answer to the first question, household investors would reduce their investment in the stock market overall speaking. However, different household investors who believe in various investment strategies would react differently. The value investor would be excited during this period since the sell-off was caused by the panic. As a result, in the market, many stocks be sold at bargain prices. The value investor would increase the investment in the stock market. PEG growth investors pursue the growth rate of a company. Nevertheless, in this situation, most of the firms would experience a downturn, and PEG growth investors might lose confidence in most of the stocks. For DCF investors, the cash flow of the firm in the future is crucial. However, the recession would decline the cash flow of a company in the future. Index investors may feel indifferent about the volatility of the market. Most of them would still buy the index every once in a while, since the index investor pursue long-term returns. Momentum investors may sell off most of their stocks during the recession since they would only purchase the stock when the price of the stock has a rising trend and momentum investors would exit the market quickly if the price of the stock starts to go down. Income investors would pick the stock if the dividend yield exceeds the US10YR. The dividend is calculated by dividing the annual dividend payment by the stock price. In this situation, the price of stock decreases, which results in a higher percentage return on the investment and the income investor might invest more money in the market with the high dividend yield. In the end, for inside buying, stock buybacks investors, would still pay attention to the moving direction of the senior managers of a company or the general decision of the company. The conflict wouldn't have much impact on them.

## References

- [1] Qingqian He. The potential impact of conflict between Russia and Ukraine on global economy and trade. *Review of International Political Economy*, 2023, 41 (01): 85 - 121.
- [2] Ruth Endam Mbah, Divine Forcha Wasum. Russian-Ukraine 2022 War: a review of the economic impact of Russian-Ukraine Crisis on the USA, UK, Canada, and Europe. *Advances in Social Sciences Research Journal*, 2022, 9 (3): 144 - 153.
- [3] Xiaolin Li. Research on the impact of emergencies on the financial markets. *University of Electronic Science and Technology of China*, 2013, 32 (1): 3928 - 3953.
- [4] Tao Ping, Xianwei Liu. Research on the impact of foreign emergencies on domestic stock market. *Forecasting*, 2015, 34 (2): 66 - 70.
- [5] Jussi Nikkinen, Mohammad M. Omran. Stock returns and volatility following the September 11 Attacks: Evidence from 53 equity market. *International Review of Finance Analysis*, 2008, 17 (1): 27 - 46.
- [6] Teng Ye. Research on the impact of public health emergencies China's stock market return. *Anhui University of Finance and Economy*, 2023, 59 (2): 309 - 442.
- [7] Liu Yang, Silin Li, Zijie Deng. The influence of Russia-Ukraine military conflict on the return of China's stock market. *Journal of Hubei University of Technology*, 2023, 38 (3): 46 - 50.
- [8] Xuanhua Hao. Research on the impacts of attention and emotion of emergency news media on hina's stock market. *Huazhong University of Science and Technology*, 2022, 47 (2): 390 - 550.
- [9] China Economic Information Agency, State Information Center. Belt and road initiatives big data index [EB/OL]. (2022-06-30) [2023-8-17]. <https://www.yidaiyilu.gov.cn>.
- [10] United Nations Statistics Office. Global trade data [EB/OL]. (2020-12-31) [2023-8-17]. <https://comtradeplus.un.org>.
- [11] Tian Gang, Bangchu Qiu, Liyan Shan. Impacts of Russia-Ukraine conflict on Sino-Russian woody forest products trade. *World Forestry Research*, 2022, 35 (6): 113 - 119.
- [12] Food and Agriculture Organization of the United Nations. Consumer prices Indices [EB/OL]. (2022-12-31) [2023-8-17]. <https://www.fao.org/faostat>.
- [13] Xuebing Bai, Wang Ping, Yingheng Zhou. The influence of Russia-Ukraine conflict on China's agriculture trade and China's response. *Russia Studies*, 2022, 4 (236): 127 - 150.

- [14] Howard Max. The most important thing illuminated. Modern Commercial Bank, 2017, 33 (12): 21.
- [15] Leijie Zhang, Yinhua Zhang. An empirical analysis of investment value of A-share GEM stock based on PEG model. Current Economics Monthly, 2021, 32 (08): 18 - 21.
- [16] Shihao Wang, Changbi Li. Photovoltaic value evaluation based on DCF model: A case study of Longi Green Energy. Investment and Cooperation, 2023, 30 (06): 142 - 144.