

The Impact of the Regional Military Conflict in Global Stock and Commodity Market

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Abstract. As the crisis between Russia and Ukraine erupted, a certain degree of geopolitical risk has been triggered, which caused a significant impact on the global economy. The transmission mechanism of geopolitical risks is complex, and factors that may cause market volatility risks include trade factors, investor sentiment, relevant policies and so forth. This article will combine previous research findings and existing market data to explore the impact of the Russia-Ukraine conflict on the stock and commodity markets. Besides, it will also interpret the possible risk transmission mechanisms and consequences behind it based on statistics facts. The study found that this event had a disastrous effect on both the stock and commodity markets, but the specific direction and intensity of the fluctuations vary depending on the research subject. This article summarizes some previous research and provides a summary of the global economic impact of the Russia-Ukraine conflict and gives some suggestions to investors.

1 Introduction

With the degree of economic globalization getting increasingly deepening, major or minor, the national policy changes or tensions between countries will have an immediate or indirect impact on the international finance and commodity markets. Following the explosion of the crisis between Russia and Ukraine, geopolitical risk (GPR) soared. People over the world paid close heed to the conflict and the consequences it caused, leading to a volatility in the market.

Russia possesses abundant natural resources, such as natural gas, crude oil, and various metals like palladium, gold, cobalt, and nickel. Russia holds a leading position globally in terms of natural resource reserves, ranking among the top three. Many countries in Europe and the former Soviet Union heavily rely on Russia for natural gas supply [1]. Additionally, Russia is also one of the world's largest agricultural nations, possessing vast and luxuriant land as well as affluent water resources. It has the capacity to cultivate and export a wide range of crops such as wheat, barley, oats, and corn, making its crop export industry an important component of global food supply.

In response to the Russia-Ukraine conflict, the United States, along with Western European countries and regions, have implemented economic sanctions on Russia. These sanctions target various sectors, including finance, energy, transportation, and technology. These measures have intensified the geopolitical risks arising from the Russia-Ukraine conflict. This will result in a series of impacts on world stock markets, commodity markets, and currency markets through various

transmission mechanisms and underlying influencing factors.

The transmission mechanisms of geopolitical risks are complex, and factors that may cause market volatility risks include trade factors, investor sentiment, and monetary policy. This study will explore the impacts of the Russia-Ukraine conflict on the stock and commodity markets respectively, and make preliminary interpretations of the possible risk transmission mechanisms behind them.

The remaining parts of this paper are organized as follows: Part 2 explores the impacts of Russia-Ukraine conflict on stock market; Section 3 dissertate the influence spread in energy and agricultural product market. Besides, the final section gives a conclusion of this paper.

2 Stock Market

From an economic standpoint, the Russia-Ukraine issue must have a number of negative impacts on investment, commerce, and confidence among consumers, which increases economic uncertainty. Only then can stock prices respond to the crisis. International trade and investment may be impacted by this situation, particularly if sanctions issued by nations or disruptions in the supply of commodities and resources have an impact. Businesses that depend on the demand for staple commodities may experience greater expenses and lost competitiveness as a result of these effects, which could cause a reduction in the value of their stock [2]. Previous studies have shown that political unrest in a particular region and economic turbulence can result in financial contagion, in which pressures or instability in the

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financial markets spread from a particular market to a different one through specific transmission mechanisms.

Moreover, for stock prices to respond to the Russia-Ukraine crisis, individual investors and market participants are influenced by both rational considerations, such as risk and return, and psychological and emotional factors due to geopolitical risks [3]. This shows that there may be other influences on market behavior in addition to rational calculations, such as subconscious prejudices, emotions, along with social and cultural variables.

2.1 Different Types of Company Stocks

Due to Australia's significant trade partnership with Russia and Ukraine, the outbreak of the Russia-Ukraine

conflict can have an impact on the operations of domestic Australian businesses, potentially causing a series of stock price fluctuations. By selecting stocks from various industries in Australia as the research subjects, it is possible to explore the effect of the dispute between Russia and Ukraine on several sectors' stock prices [4].

2.1.1 The Impact on Companies in Different Sizes

The following Table 1 shows the changes in the average daily abnormal returns (AAR) of stocks of companies in different sizes affected by the Russia-Ukraine conflict.

Table 1 Average abnormal return by size [4]

Event window		Pre-event days			Event day	Post-event days		
		-3	-2	-1	0	1	2	3
Large cap	AAR	-0.2	0.23	0.1	-0.01	0	0.69	0.26
	BMP	-0.61	0.51	0.69	-0.08	0.12	1.89	0.73
	Wrank	-0.43	1.54	0.24	-1.04	0.54	1.31	1.57
	Obs	94	94	94	94	94	94	94
Mid cap	AAR	-0.69	0.43	-0.95	-1.53	0.91	-0.49	1.36
	BMP	-1.2	2.05**	-1.19	-4.9***	2.53**	-0.77	3.31***
	Wrank	-2.82***	2.23**	-1.44	-5.16***	2.59***	-0.84	4.04***
	Obs	95	95	95	95	95	95	95
Small cap	AAR	-0.18	0.44	-1.18	-1.26	0.84	-1.55	0.94
	BMP	-0.33	1.44	-3.21***	-3.11***	3.14***	-2.19**	0.97
	Wrank	-0.91	1.29	-4.01***	-3.63***	3.29***	-2.57**	2.78***
	Obs	94	94	94	94	94	94	94

Note. The detailed information please see M. R. Kamal et al [4].

According to the data above, it can be observed that different company sizes lead to varying responses in stock prices to conflicts. By examining the average daily abnormal return rates of small-cap, mid-cap, and large-cap stock portfolios in the three days before and after the outbreak of conflicts, it can be seen that compared to small and medium-sized enterprises, large companies experience less economic volatility from conflict outbreaks and, overall, exhibit greater stability. There exists a statistically significant negative correlation between geopolitical risk (GPR) and company value. Moreover, this detrimental effect of GPR on company value becomes more pronounced in an environment with greater uncertainty. When GPR intensifies, companies tend to respond by increasing leverage to hold more cash in order to mitigate internal uncertainty, thereby addressing the volatility of expected future cash flows, higher financing costs, and increased external uncertainty caused by overall economic conditions [5].

Based on the above facts, several reasons may contribute to the smaller impact of GPR on large companies. Generally, as the size of a company increases, it tends to choose diversification in its operations, resulting in a stronger risk resilience and lower financial distress costs. Large companies have a greater resource base, enabling them to actively engage in activities such as diversification and hedging profit

considerably from economies of scope and scale. Additionally, compared to small and medium-sized enterprises, large corporations find it easier to obtain sufficient debt financing and credit resources. They enjoy lower financing costs and longer financing terms, allowing them to assume higher leverage ratios to manage risks.

2.1.2 The Impact on Companies in Various Industries

Different industries will exhibit varying performances in response to the same geopolitical risks. Table 2 presents the varying effects on the average daily abnormal return rates for nine distinct industries in the three-day period surrounding the onset of the Russia-Ukraine conflict.

On the day of the conflict outbreak, significant negative average abnormal returns (AAR) were observed in four out of the nine industries: Consumer discretionary, Industrials, Real estate, and Communication Services and Information Technology. The Communication Services and Information Technology sector exhibited the lowest AAR (-3.15%) among these industries. Additionally, the Consumer Staples and Energy & Utilities sectors exhibited positive AAR on the day of the conflict outbreak.

Table 2 AAR by industry [4]

AAR of different industries	Pre-event days			Event day	Post-event days		
	-3	-2	-1	0	1	2	3
Consumer Discretionary	-1.2	0.29	-1.81	-1.39	0.25	-2.18	1.84
Consumer Staples	0.19	-0.4	1.59	0.77	0.02	-1.78	-3.08
Financials	0.06	0.67	0.37	-0.29	0.31	-0.16	-0.04
Health Care	-0.85	-0.39	-1.94	-0.54	0.7	-1.05	0.18
Industrials	0.83	0.82	0.05	-1.14	1.11	0.64	1.92
Materials	0.04	1.41	-0.94	-0.59	0.27	1.5	0.05
Real Estate	0.23	0.13	0.13	-0.97	-0.26	0.11	1.31
Energy & Utilities	-0.46	0.19	-0.72	1.02	1.09	0.98	0.42
Communication Services and Information Technology	-1.81	-0.64	-1.54	-3.15	1.82	-2.93	2.85

Note. This table displays the AAR of the sample stocks categorized by industry according to the GICS sector classification.

After the conflict outbreak, different industries also experienced varying trends under the combined influence of factors such as oil volatility, investor sentiment, and geopolitical risks [6]. Consumer Staples, for example, demonstrated a continuous decline in AAR following the conflict. As both Russia and Ukraine are important global grain supply countries, geopolitical risks can lead to a decrease in the level of natural resource utilization [7]. The Russian invasion of Ukraine can result in reduced grain production, disrupting the global food supply system. This outcome indicates that, considering food as an essential commodity, increased concerns regarding food security, delivery time, and production costs due to the conflict can dampen consumer confidence, leading to a downward trend in the short term for Consumer Staples and adversely impacting the food industry. Additionally, it can be observed that the Energy & Utilities sector in Australia consistently exhibited positive AAR after the conflict. This may be due to Australia's abundant oil and gas resources, being the 12th largest oil-exporting country globally with approximately 3 billion barrels of crude oil reserves, as well as a significant exporter of natural gas. The outbreak of the Russia-Ukraine conflict disrupted the extraction and export of fossil energy resources in Russia, leading to energy supply shortages and subsequent price surges. This allowed Australian energy companies to benefit from the rising price, resulting in a positive AAR. Meanwhile, it can also be observed that the financial sector experienced relatively minor fluctuations. This may be attributed to the unique nature of the financial industry, which primarily deals with specialized commodities centered around currency. It exhibits characteristics such as high leverage rate and risk. When faced with sudden geopolitical risks, the financial industry, due to its inherent risk-bearing

capacity, demonstrates stronger resilience to shocks, resulting in smaller fluctuations.

Furthermore, although most industries were negatively affected by this event on the day of the outbreak, on the third day after the event, all industries except Consumer Staples displayed positive AAR. This reflects an improvement in investor sentiment and the recovery of the stock market under its self-regulating capacity.

2.1.3 The impact on different types of companies in the energy industry

Based on the analysis above, it is evident that energy companies' stock prices experience significant fluctuations due to this event. In the following section of this chapter, the impact of this crisis on different types of companies within the energy industry will be explored and possible reasons will be discussed.

In China, the market costs of conventional fossil fuels have experienced drastic fluctuations in recent years due to the influence of policy and market factors. With the increasing awareness of environmental protection, the pressure on the renewable energy sector in terms of supply has been continuously rising. At the same time, China's renewable energy industry is in a phase of rapid development. Given the interdependency between the Chinese and Russian energy markets, it is reasonable to expect significant changes in both China's fossil and renewable energy sectors due to the Russia-Ukraine conflict. To analyze the impact of this conflict on energy market stocks, relevant data from the Chinese energy market can be utilized [8].

The detailed representative of the abbreviations included in the following graph please see Xing [8].

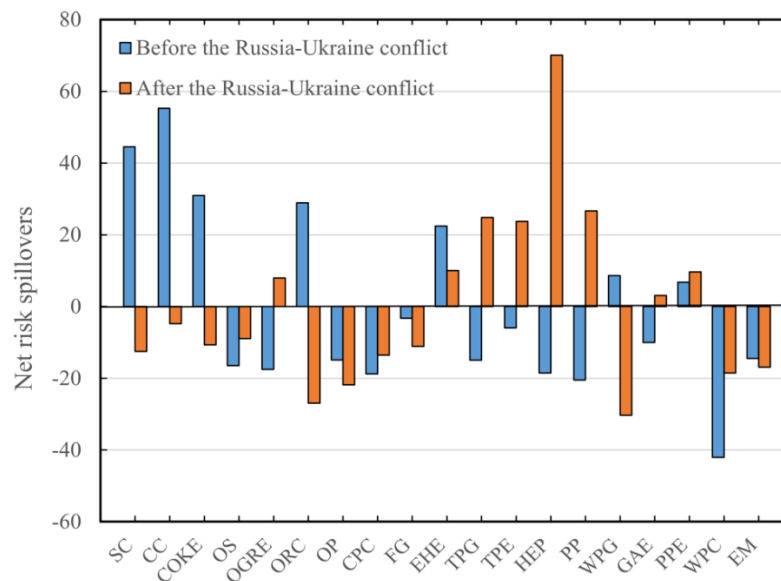


Figure 1 Net risk spillovers in Chinese stock markets prior to and throughout the crisis in Russia and Ukraine for the 19 energy segments [8]

Photo credit: [8]

Figure 1 displays the net risk spillover effects in various energy sectors in China before and during the Russia-Ukraine conflict. It is evident that the outbreak of the conflict had a magnificent impact on the stock prices of China's energy sectors. From the graph, it can be observed that before the Russia-Ukraine conflict, SC (steam coal), CC (coking coal), and COKE (coke) had the most significant net risk spillover effects, causing substantial impacts on other industries. On the other hand, WPC (wind power components), PP (photovoltaic power), and HEP (hydroelectric power) had the highest negative net risk spillover effects, indicating that these three energy sectors would be the primary risk receivers when other sectors experience spillover risks. During the Russia-Ukraine conflict, the net risk spillover effects were primarily generated by HEP, followed by PP, TPE (thermal power equipment), and TPG (thermal power generation), which differed significantly from the pre-conflict period. The sectors that received the most risk spillover were WPG (wind power generation), ORC (oil refining and chemicals), and OP (other petrochemicals). Based on the data, it can be observed that the geopolitical risks caused by the Russia-Ukraine conflict led to a shift in the risk generators from the traditional coal industry to the new clean energy industry. Simultaneously, the risk receivers shifted from new energy to traditional fossil energy.

The reasons for this shift in the risk spillover can be explained as follows. China heavily relies on fossil energy as a source of energy, so before the conflict outbreak, the traditional energy sectors faced greater pressure and were the dominant players in the energy industry, bearing the primary risks. Therefore, the traditional energy industry was the main risk spillover

generator before the conflict outbreak. During the conflict, due to disruptions in Russia's traditional energy extraction and exports, coupled with sanctions imposed by numerous countries, there was a global reduction in the supply of fossil energy and a consequent rise in prices. This had a significant impact on the traditional energy market. In China, to address the insufficient supply of traditional energy, greater pressure fell on new energy sectors to fill the energy gap and meet production needs. Consequently, specific sub-sectors within the renewable energy industry emerged as the key channels for transmitting risks, exerting an influence on other energy stock markets within the system.

2.2 Different Types of National Stocks

Different countries exhibit variations in the direction and intensity of stock market volatility during the outbreak of conflicts due to factors such as national conditions and geographical location. Numerous studies have been conducted to analyze and explore the changes in stock markets of different countries during this event.

One study investigated the volatility of stock prices in different countries during the confrontation between the two nations [9]. The country stock indexes used in this study please see S. Boubaker et al [9].

By employing regression analysis, it is possible to obtain AAR and cumulative average abnormal return (CAAR) of various countries during the five-day period preceding and following the conflict outbreak. According to the calculation results, the Figure can be drawn as follows (Figure 2):

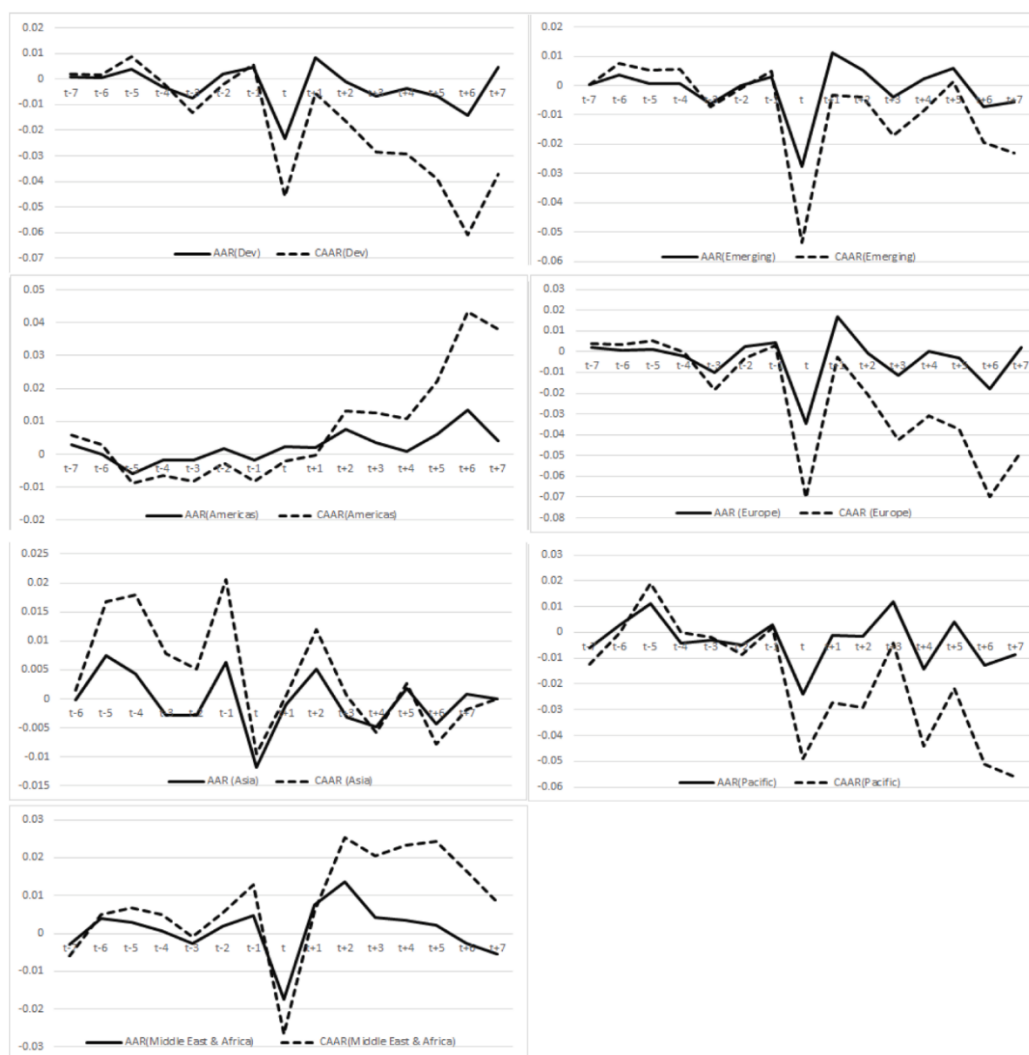


Figure 2 AAR and CAAR graphs during the event window around the beginning of the war [9]

Photo credit: [9]

The results of this study indicate that both developed and emerging countries exhibit negative stock price fluctuations when affected by the geopolitical risks. This finding confirms that the outbreak of war has significant negative implications for global financial markets, disrupting the stability of the economic system. Furthermore, when examining the responses of different countries' stocks in various regions to the event, it is evident that, apart from American countries showing positive AAR, all countries across regions exhibit negative AAR and CAAR, among which European countries showing the most significant negative values.

In the case of the Americas, their distant geographic location from the warring countries and the absence of close economic relations with Russia and Ukraine resulted in a lower degree of stock price impact on the day of the event, and even showed positive responses. As time progressed after the event, the Americas market experienced significant positive abnormal returns.

The positive impact witnessed on the day of the event can be attributed to a market sentiment prevailing at that time. Investors held the belief that the Russia-Ukraine war would not escalate into a global conflict and that the Americas would experience lesser effects

from the conflict. Additionally, the swift implementation of economic and financial sanctions against Russia by countries led by the United States also influenced investor perspectives, as they believed these sanctions would exert pressure on the warring parties and lead to a quick end to the war.

For European countries, stock price volatility primarily resulted from their geographical proximity to the warring parties, leading to heightened investor panic. Additionally, as many European countries rely on Russia's natural gas exports, the reduction in energy exports from Russia during the conflict had a more significant negative impact on European countries, resulting in pronounced stock price fluctuations. Although to a lesser extent, other countries in different regions also experienced a certain degree of negative impact.

During the crisis, the volatility of stock prices is influenced by a country's level of development. The graph illustrates that developed markets witnessed significant negative returns from t+3 to t+5 days, while emerging markets only experienced a significant negative return on t+3 day. It is evident that both markets were significantly impacted by the conflict

outbreak, displaying negative effects. A network-based study indicated that before the war, the global stock market network was more concentrated around emerging economies, indicating that stock markets in developing countries were more active and had greater return potential. However, during the war, the concentration of the network was higher for developed economies, highlighting the dominant role of crises in the stock market returns of developed economies. During the war, the distance between nodes and central points increased, indicating a reduced tendency for profits from arbitrage opportunities. This change had a consistent impact on both developed and developing countries' stock markets [10]. Hence, it is evident that developed markets are more affected by extreme crises, leading to a significant decline in their market efficiency due to the emergence of geopolitical conflicts. During times of crisis, emerging markets tend to experience a relatively lower intensity of impact compared to developed countries, due to the characteristics of their underdeveloped currency and economic systems.

Another study has indicated that the intensity of the impact resulting from geopolitical risk (GPR) during the Russia-Ukraine conflict is primarily influenced by a country's level of involvement. Furthermore, the relationship between GPR and stock prices is generally negative. This study suggests that emerging markets possess potential advantages in hedging against the impact of shocks driven by geopolitical risk [11].

2.3 Global stock

Based on the daily data on stock market return from 94 countries during January 22nd, 2022 to March 24th, 2022, a regression research was done, the detailed model specification please see Boungou & Yatié [12]. The formular used in the analysis is shown as follow:

$$Stock_{c,d} = c + \alpha_1 War_{c,d} + \theta_d + \lambda_c + \varepsilon_{c,d} \quad (1)$$

The results of the regression are shown in the following table 3:

Table 3 The impact before and during the conflict [12]

	Stock market index		
	Overall	Pre	Post
Ukraine–Russia war	-0.858***	-0.224	-1.001***
	-0.26	-0.36	-0.2
Observations	3747	1945	1802
Countries	94	94	94
Region Fixed-effect	Control	Control	Control
Time Fixed-effect	Control	Control	Control
R-sq, within	0.017	0.142	0.016

Table 3 demonstrates the adverse impact of the Russia-Ukraine conflict on global stock markets, where the post-conflict impact is notably stronger compared to the pre-conflict impact. The negative impact before the outbreak may have been due to investor concerns about the tense relationship between Russia and Ukraine.

However, after the conflict broke out, investors had more factors to worry about, and there were substantive changes in areas such as commodity exports. Countries also gradually imposed economic sanctions on the warring parties, leading to a greater negative impact on global stock markets.

Table 4 The impact several weeks after the invasion [12]

	Stock market index			
	The weeks after the invasion:			
Ukraine–Russia war	1	2	3	4
	-0.610***	-1.121*	-0.888**	-0.858***
	-0.19	-0.57	-0.36	-0.26
Observations	2375	2811	3266	3747
Countries	94	94	94	94
Region Fixed-effect	Control	Control	Control	Yes
Time Fixed-effect	Control	Control	Control	Yes
R-sq, within	0.215	0.017	0.017	0.017

Table 4 describes the changes in global stock indices in the weeks following the outbreak of the conflict. The results show that in the two weeks after the conflict broke out, there was a greater negative impact. However, in the third and fourth weeks, the negative impact weakened to some extent, and the stock market showed signs of improvement, reflecting the recovery of the stock market and the self-regulating ability of the economic system. The reasons for these changes may be attributed to the strong investor panic and uncertainty immediately following the outbreak of the conflict, leading to significant fluctuations in the stock market due to the influence of investor sentiment. Additionally, the series of direct effects in the commodity market and the implementation of relevant sanction policies by countries caused changes in the economic system following the conflict outbreak, resulting in strong negative fluctuations in the stock market. At the same time, it takes time for countries to formulate and implement relevant policies in response to the complex international situation in order to mitigate the impact of the conflict on their own countries. The transmission of this information to the stock market also requires time, which is why the global stock market showed signs of recovery two weeks after the conflict outbreak.

The regression results highlight the significant negative impact of the armed conflict between Ukraine and Russia on global stock returns. This political tension has caused a substantial decline in global stock markets, emphasizing the sensitivity of these markets to the Ukraine-Russia war.

3 Commodity Market

Russia and Ukraine play a significant role in the global trade system with their commodity exports. Nations in Europe, Central Asia, the Middle East, and Africa rely

on Russia and Ukraine for a significant portion of their wheat imports, comprising approximately 75% of the total. Ukraine holds a 40% share in global sunflower oil exports. Ukraine also plays a substantial role in corn and wheat exports, contributing over 13% and 5% respectively. Russia, on the other hand, is a major player in global natural gas exports (25%), coal exports (18%), crude oil exports (11%), wheat exports (18%), and fertilizer exports (14%) [13].

The price performance in commodity markets reflects a combination of various market factors, including supply and demand dynamics, investor sentiment, and geopolitical risk factors. Given the special status of Russia and Ukraine in commodity markets, the outbreak of the Russia-Ukraine conflict is bound to have a series of impacts on the global commodity market. In this section, the effects of the conflict on the commodity market from the perspectives of energy and agricultural products will be discussed, as well as the consequences it entails.

3.1 Energy

The rise in crude oil prices sustains the economic growth of oil-exporting countries. However, the negative impacts generated by oil price volatility are typically greater than the positive effects of price increases, exerting severe inhibitory effects on both short-term and long-term economic growth [14].

To examine the impact of the Russia-Ukraine conflict on the global energy market more intuitively, representative indices such as the Crude Oil WTI index and Natural Gas index from Investing were used to reflect energy price fluctuations. The outbreak of the Russia-Ukraine conflict occurred on February 24, 2022. Therefore, data from January 24, 2022, to March 24, 2022, were selected as the basis for the study.

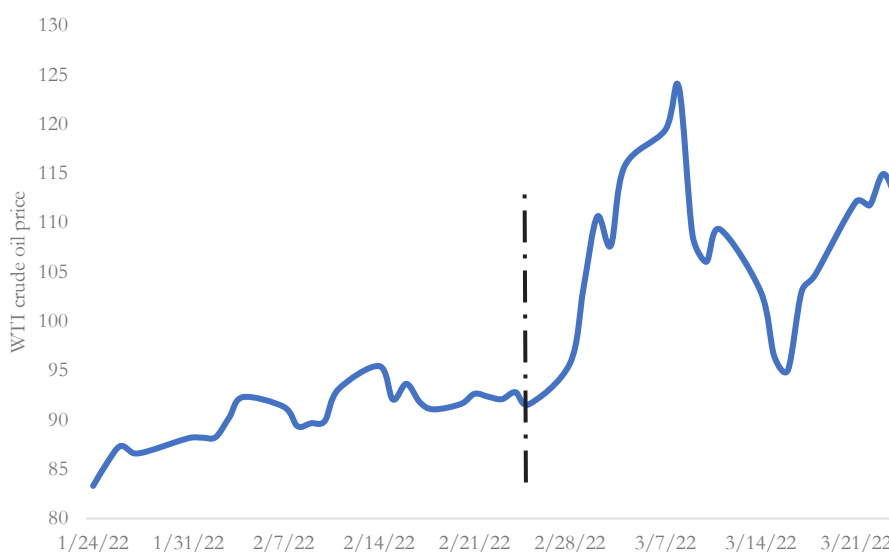


Figure 3 The WTI crude oil price between January 24th, 2022 and March 24th, 2022

Photo credit: Original

Figures 3 and 4 demonstrate that following the onset of the Russia-Ukraine conflict, there was a notable upward trend in both crude oil and natural gas prices over the subsequent month. This trend can be attributed to the impact of geopolitical risks associated with the conflict. For crude oil prices, a significant increase can be observed after the conflict outbreak. This trend is attributed to the restriction on Russia's oil extraction and exports, leading to a reduction in global oil supply and subsequent price increases due to supply-demand

imbalances. Additionally, in March, a gradual decline in crude oil prices can be seen, possibly due to the spread of the COVID-19 pandemic and the initiation of new peace negotiations between Russia and Ukraine. As for natural gas prices, they continued to fluctuate and rise after the event, indicating that the risks caused by the Russia-Ukraine conflict were not easily offset by other events. Therefore, even if natural gas prices experienced temporary declines, they would rise again under the influence of the conflict.

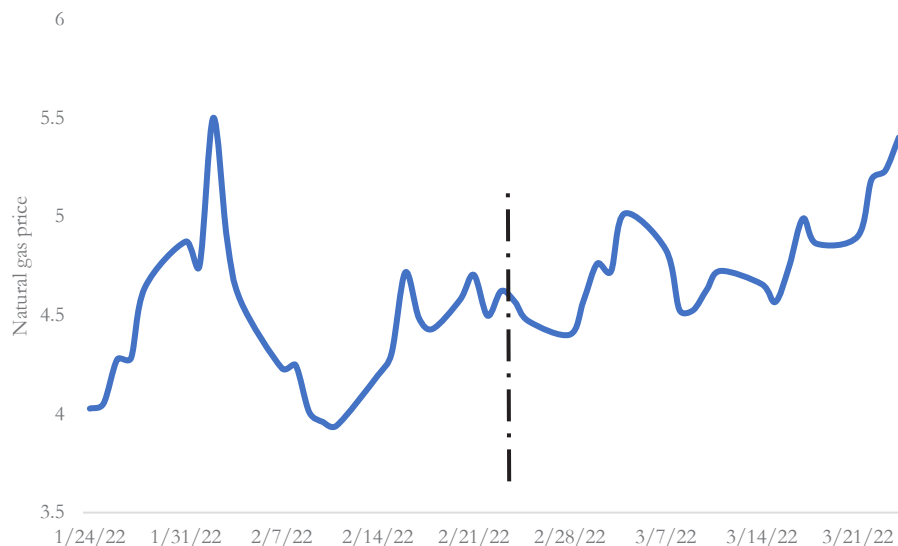


Figure 4 The natural gas price between January 24th, 2022 and March 24th, 2022

Photo credit: Original

Furthermore, as European countries heavily rely on energy supplies from Russia, scholars have studied the impact of energy market volatility on the European economy. Empirical findings suggest that the Russia-Ukraine conflict resulted in a substantial increase in systematic risks within the oil and natural gas markets. Notably, the natural gas market experienced higher risks compared to the oil market. This vulnerability of the natural gas market can be attributed to Russia's limitations on natural gas exports to Europe as a response to economic sanctions imposed by Western nations. Europe's heavy reliance on Russian natural gas, which surpasses its dependence on oil, amplified the risks within the European natural gas market, leading to significant fluctuations [15].

Previous economic literature suggests that the impact of rising energy prices on real GDP is relatively small because energy consumption serves as an intermediate input in traditional models, while GDP measures the final products and services in society. Nonetheless, it is important to note that the simultaneous increase in energy prices can have a detrimental impact on the welfare and market surplus of both consumers and businesses, consequently slowing down economic growth. When energy prices rise, consumers typically prioritize spending on durable goods, such as new houses. With declining consumer demand, companies may reduce investment expenditures due to increased risks and uncertainties. Additionally, high-income

households tend to experience greater loss in surplus due to increased energy expenses. From a traditional perspective based on supply and demand principles, under certain demand conditions, this upward movement in energy prices will lead to economic losses. Put simply, when energy prices rise and the supply curve shifts upward while the demand curve remains constant, the resulting increase in market price will inevitably lead to a decrease in trade volume and a reduction in social surplus [16].

The volatility in the energy market generates risk transmission, resulting in a series of cascading impacts within the economic system. Research indicates that since Europe heavily relies on energy imports from Russia, European companies that extensively utilize energy in production experience decreased business capacity and asset prices in 2022 when faced with higher energy prices and scarce energy supplies. The relationship between these factors is positively correlated [17]. Additionally, energy price changes serve as a critical starting point for war-induced global economic impacts through the transformation of commodity inflation. Therefore, in the short term, due to reduced global energy market supply and price increases, the expand in export revenues leads to an increase in foreign exchange supply in the domestic markets of commodity-exporting countries, resulting in currency appreciation against the currencies of commodity-importing countries [18].

3.2 Agricultural products

Over 35% of the global population relies on wheat as a staple food, and the ongoing conflict could potentially lead to a significant decline in wheat exports from Russia and Ukraine. This paper selects wheat as an entry point to examine the impact of the Russia-Ukraine conflict on the agricultural market.

Based on data from Investing, representative indices such as the London wheat futures price index and the American wheat futures price index are used to reflect the price fluctuations of wheat. Data from January 24, 2022, to March 24, 2022, is selected as the basis for this study.

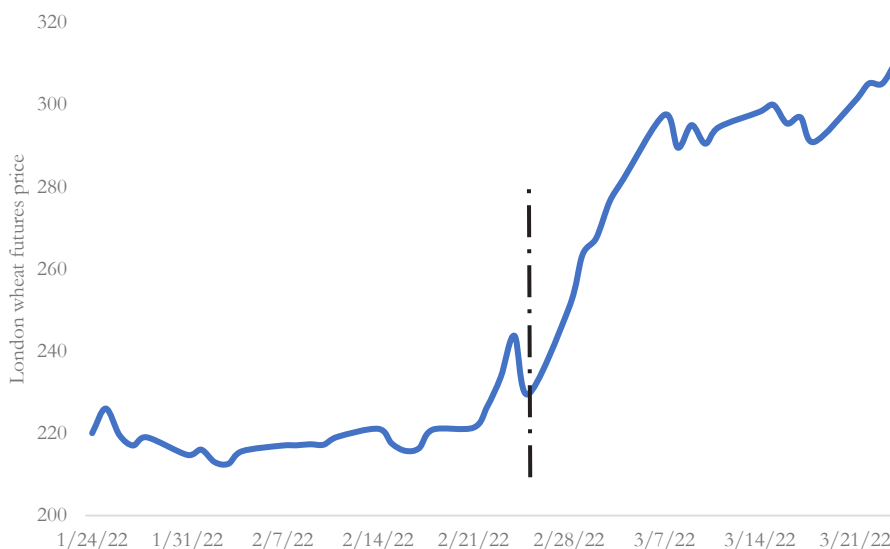


Figure 5 The London wheat futures price between January 24th, 2022 and March 24th, 2022

Photo credit: Original

From Figure 5 and 6, it can be observed that after the outbreak of the Russia-Ukraine conflict, the commodity prices of wheat increased significantly due to production shortages, trade disruptions, and increased input costs. This led to a noticeable upward trend in wheat futures prices in both London and the United States. However, there is a difference between the two markets: the wheat price in London continued to rise, while the price in the United States experienced a significant decline in March. The reason for this difference may be that the UK, as

one of the European countries, heavily relies on wheat exports from Russia and Ukraine. Therefore, with a decrease in wheat exports, the London wheat futures prices continued to rise. On the other hand, the United States is also a wheat-producing country. Initially, the wheat futures prices in the United States were influenced by the global increase in wheat prices. However, as the international demand for wheat increased, the wheat supply in the United States also increased, resulting in a subsequent decline in prices.

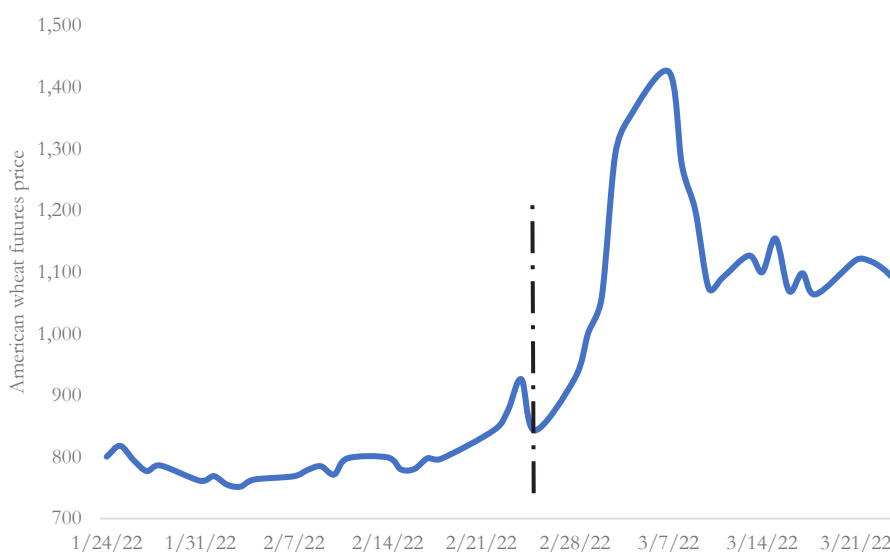


Figure 6 The American wheat futures price between January 24th, 2022 and March 24th, 2022

Photo credit: Original

From Figure 5 and 6, it can be observed that after the outbreak of the Russia-Ukraine conflict, the commodity prices of wheat increased significantly due to production shortages, trade disruptions, and increased input costs. This led to a noticeable upward trend in wheat futures prices in both London and the United States. However, there is a difference between the two markets: the wheat price in London continued to rise, while the price in the United States experienced a significant decline in March. The reason for this difference may be that the UK, as one of the European countries, heavily relies on wheat exports from Russia and Ukraine. Therefore, with a decrease in wheat exports, the London wheat futures prices continued to rise. On the other hand, the United States is also a wheat-producing country. Initially, the wheat futures prices in the United States were influenced by the global increase in wheat prices. However, as the international demand for wheat increased, the wheat supply in the United States also increased, resulting in a subsequent decline in prices.

A study conducted a quantitative analysis to estimate the potential impact of the Russia-Ukraine conflict on the global wheat market. The simulation results indicated that, in mild conditions, the average global wheat price would rise by 3%, whereas under severe conditions, the increase would be as high as 12%. The countries most heavily reliant on Ukrainian wheat exports would experience the highest price increase, with an average increase of 46% under severe conditions, nearly four times the global average. This indicates that countries more dependent on Russian and Ukrainian wheat exports would suffer greater losses due to this conflict. Additionally, with the increase in trade costs, these impacts would be more pronounced [19].

4 Conclusion

This paper focuses on the geopolitical risks triggered by the Russia-Ukraine conflict and explores the resulting fluctuations in the stock and commodity markets. Based on relevant research and data, it attempts to provide a preliminary interpretation of the potential risk transmission mechanisms and discusses the consequences. This paper contributes to a basic understanding of the economic impact of the Russia-Ukraine conflict.

Research indicates that the impact of this conflict on the stock prices of large companies is relatively small, which may be attributed to their economies of scale and higher leverage ratios. Different industries exhibit varying degrees and directions of response to the crisis due to their own unique characteristics. Examining the stock prices in the energy sector, it can be found that the risk generators shift from traditional coal industries to new clean energy industries, while the risk bearers undergo the opposite transformation. Furthermore, the overall impact of this crisis on national stock prices is related to the level of development and geographical location of each country, as they have different risk transmission mechanisms. Additionally, the outbreak of the Russia-Ukraine conflict has a negative impact on

global stock markets, and the impact after the outbreak is significantly stronger than before.

The examination of the commodity market primarily focuses on the energy market and the agricultural market, which is determined by Russia and Ukraine's status as global exporters of energy and agricultural products. After the outbreak of the Russia-Ukraine conflict, the overall prices of crude oil and natural gas showed significant upward trends due to the impact of geopolitical risks. Among them, the natural gas market is more vulnerable than the oil market. The increase in energy prices has a series of effects on social welfare, business capabilities, and foreign exchange markets. At the same time, major wheat-producing countries can alleviate the global wheat crisis by increasing their exports and enjoy the economic benefits brought by the rise in global wheat prices.

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