

The Economic Impact of Geopolitical Conflict: Energy, Markets, and Policy Recommendations

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Abstract: The Russia-Ukraine war leads to profound economic impact on energy markets, international industrial chains, and government inflation controls. Shortages of energy supply and rising energy prices are creating problems for both energy consumers and energy suppliers. Changes in the energy supply structure and the international energy system have brought new patterns to the international energy market. The war disrupted the international industrial chain, causing shortages of critical raw materials and parts, affecting the production and operations of many enterprises. The whole globe was forced to take steps to mitigate the effects of war on inflation. This research aims to find the economic impact of this significant geopolitical conflict, with respects to energy, market and policy recommendations. The research believes that it will be quite significant for governments and firms to peacefully stop the conflicts, or it will continuously disturb the global economy and make a few countries in great trouble. For international communities, they can make efforts to promote peaceful solutions to the conflict.

Keywords: Russia-Ukraine war, energy market, international industry chain, inflation control

1. Introduction

In February of 2022, the Russian-Ukraine war broke out and continues to this day. This war impacts the whole globe heavily and negatively. It also causes significant economic damage to it since the country's infrastructure and industry were badly hit by the war. Some European countries who support Ukraine have imposed economic sanctions on Russia, for example, they no long purchase energy from it, causing some problems, which the author is going to discuss in the following paragraphs.

Based on background information, this research takes energy markets, international industry chain, and government inflation control into consideration, which are important factors in people's daily lives, international political modes, and government regulation, to discuss the outbreak of Russia-Ukraine war's economic impacts.

The following sections of this paper are organized as follows: Section 2 analyzes the impact on the energy market; Section 3 introduces the impact on the international industry chain; Section 4 describes the impact on inflation control of governments. Section 5 is conclusion.

2. The Impact on the Energy Market

2.1. The Shortage in the Supply of Energy and Soar in the Energy Price

As the research mentions in the introduction, sanctions against Russia by some European countries have caused some problems. These countries are refusing to buy energy from Russia, thus reducing Russia's income. However, this action will harm these European countries themselves, as Russia is one of the largest sources of energy, a sudden loss in its energy supply will dramatically increase the price of energy, making ordinary people suffer from the soar in the energy price because energy is essential in people's daily life.

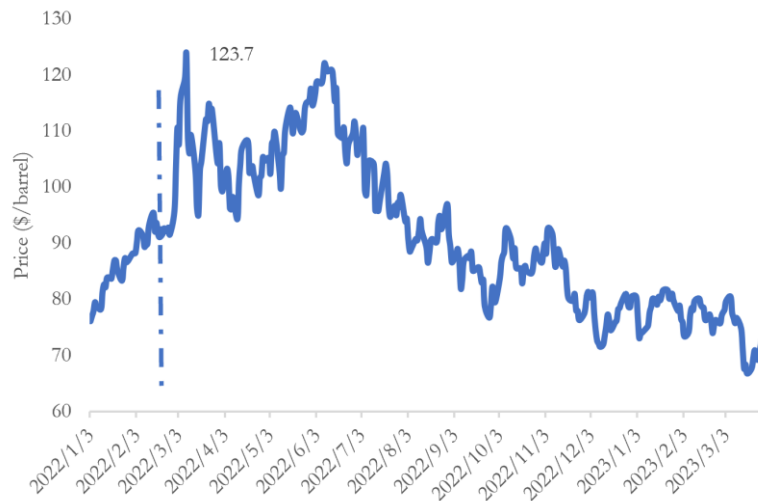


Figure 1: The price of crude oil from 2022 to 2023.

Data source: cn.investing.com [1]

Photo credit: Original

As figure 1 and figure 2 show, after the outbreak of the Russia-Ukraine war, both crude oil and natural gas faces an increase in price.

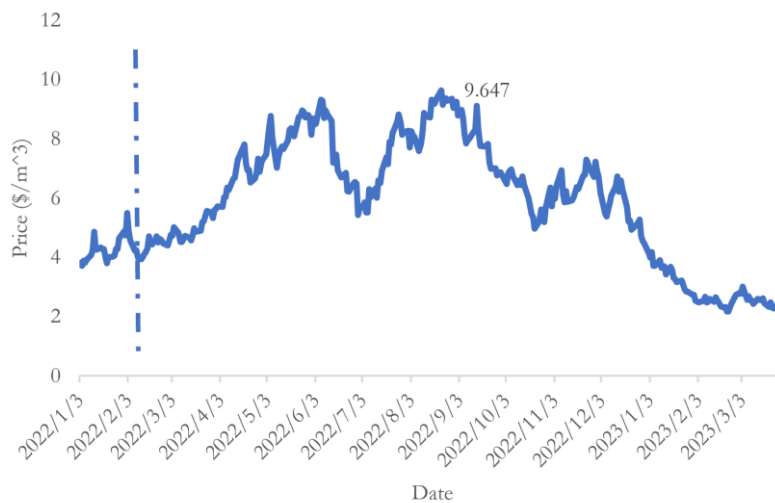


Figure 2: The price of natural gas from 2022 to now.

Data source: cn.investing.com [2]

Photo credit: Original

2.2. The Change in Energy Supply Structure

Since some European countries cut off the sources of energy from Russia, for making up the shortage, they have to turn to other energy suppliers such as the United States and some African countries. This can change the structure of energy supply significantly because Russia is one of the biggest natural resource's exporters, as the author mentions above.

At the same time, for those countries who used to rely on Russian energy supply, they will try to replace the traditional energy sources, such as petroleum and natural gas, with new ones, for example, solar, tidal and wind energy, which are all environmental-friendly and sustainable sources of energy. In the long run, this can change the structure of energy usage and supply. Some countries even issue policies to deal with the energy problem. For example, according to European Parliamentary, the EU's only directly-elected institution [3], the EU is boosting renewable energy by accelerating permits for renewable energy power plants, betting on renewable hydrogen, boosting offshore renewable energy, opting for alternative fuel, funding green energy infrastructures and ensuring a fair energy transition for everyone [4].

2.3. A New Pattern in the International Energy System

During the energy conflict caused by the Russia-Ukraine war, many NATO countries, especially many European countries, got impacted fiercely due to their action of imposing economic sanction on Russia. Now the author is going to analyze the impact on different countries. A small proportion of them were better off because they were resources suppliers and could make up the loss of Russian supply, but most were worse off because they had to afford the soaring price of those essential energy.

2.3.1. The United States

The United States, as one of the biggest energy exporters, becomes one of the beneficiaries in the chaotic crisis. According to data of the EIA (U.S. Energy Information Administration), the US petroleum product exports set a record high in 2022. For distillate fuel oil and petroleum coke, they amazingly increased more than 10% (please see Figure 3) [5].

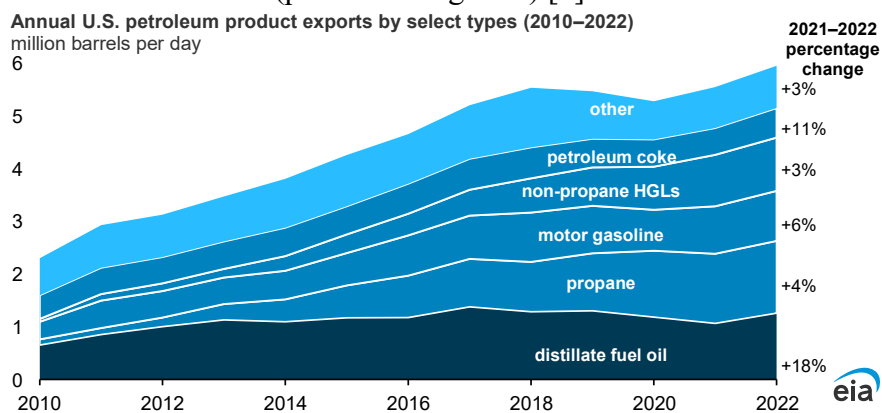


Figure 3: Annual U.S. petroleum product exports by select types.

Data source: Energy Information Administration [5]

Photo credit: <https://www.eia.gov/todayinenergy/detail.php?id=55880>

2.3.2. Norway

Norway, accidentally, becomes one of the beneficiaries during the energy crisis. The oil and gas sector is Norway's one of the largest and the most essential sectors. Then, during the energy crisis, its supply

of crude oil and natural gas becomes a popular source among the European countries. According to the data presented on norskpetroleum.no, a site run in cooperation by the Ministry of Petroleum and Energy and the Norwegian Petroleum Directorate [6], the percentage of the shares soared in 2022 and reached a really high level, as figure 4 shows.

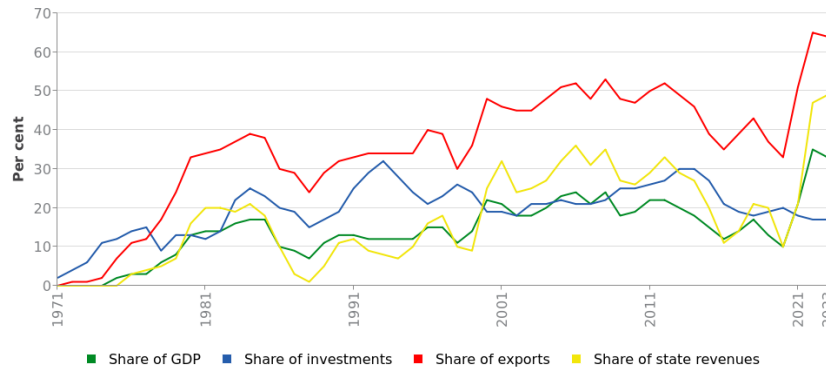


Figure 4: The soar of shares in 2022.

Data source: norskpetroleum.no [6]

Photo credit: <https://www.norskpetroleum.no/en/economy/governments-revenues>

According to figure 5, the share of GDP reaches 33%, the share of the State's revenue achieves 49%, the share of total investments attains 17%, and the share of total exports amazingly gets to 64% [6].

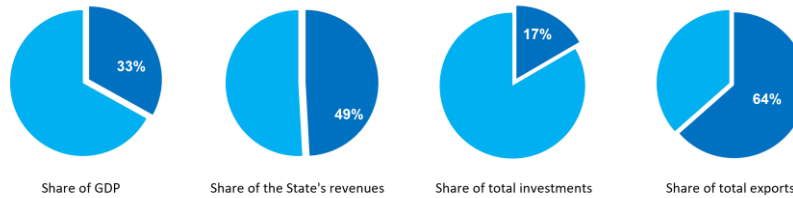


Figure 5: Shares of the oil and gas sector in Norway.

Data source: norskpetroleum.no [6]

Photo credit: <https://www.norskpetroleum.no/en/economy/governments-revenues>

2.3.3. European Countries Who Were Worse Off

Since there are too many countries who were worse off in Europe, so in this section, the author will take Germany as an example to illustrate how negatively some European countries were impacted. As IHS Markit's data shows, in 2020, 55.2% of the natural gas imports of Germany are from Russia, which means this country really depends on Russian supply of energy (please see Figure 6).

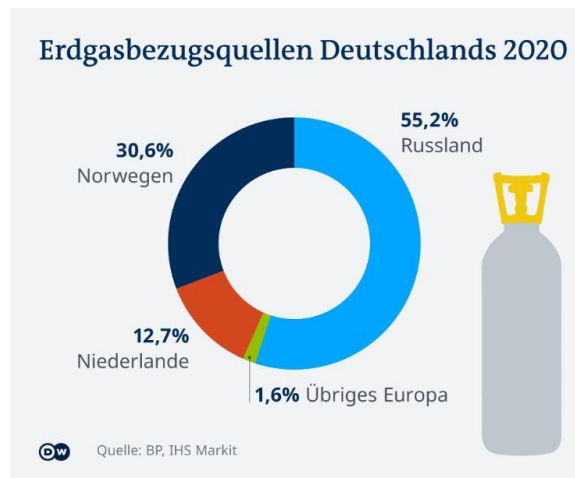


Figure 6: Natural gas sources of Germany in 2020.

Data source:

<https://www.tmtpost.com/6275799.html#:~:text=2020%E5%B9%B4%E5%BE%B7%E5%9B%BD%E5%A4%A9,%E5%BE%B7%E5%9B%BD%E8%BF%9B%E5%8F%A3%E8%8C%83%E5%9B%B4%E5%86%85%E3%80%82> [7]

Photo credit: IHS Markit

At the same time, data from Trading Hub Europe (THE) shows that the average monthly natural gas consumption for industrial usages in Germany has greatly decreased, meaning that for making up the sudden loss of the Russian energy supply, which is a significant part in German energy supply structure, the country had to sacrifice the industry sectors and ensuring the residential usages (please see Figure 7). This phenomenon will definitely cause a recession in German economy because the economic growth of this country relies on its industrial production, which is currently cut off to some extent. For other European countries who depend on Russian energy supply, the situation will be very similar to German one.

Gasverbrauch Industriekunden in GWh/Tag, monatlicher Mittelwert

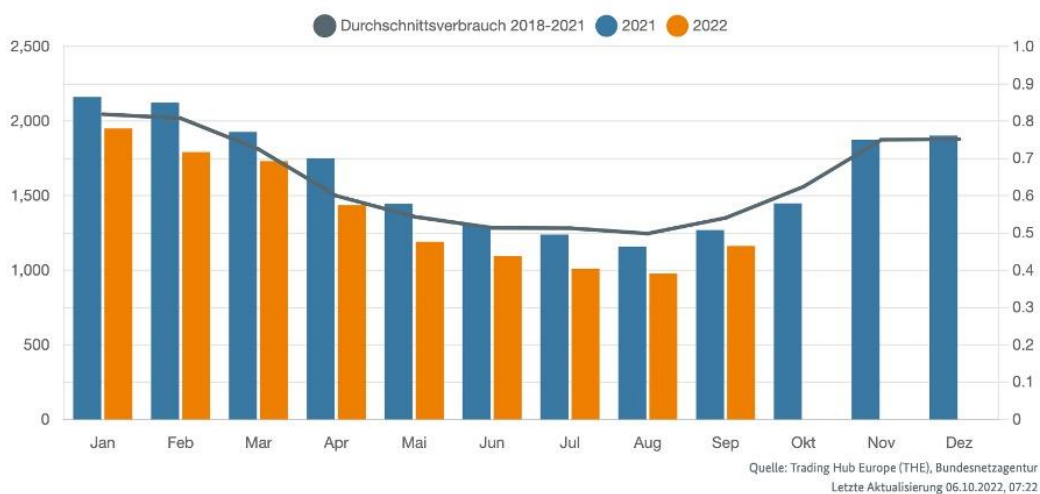


Figure 7: Average monthly consumption of natural gas in Germany.

Data source: tradinghub.eu

Photo credit:

<https://www.tmtpost.com/6275799.html#:~:text=2020%E5%B9%B4%E5%BE%B7%E5%9B%BD%E5%A4%A9,%E5%BE%B7%E5%9B%BD%E8%BF%9B%E5%8F%A3%E8%8C%83%E5%9B%B4%E5%86%85%E3%80%82> [8]

3. The Impact on International Industry Chain

The Russia-Ukraine War had a severe impact on the international industrial chain. Conflicts disrupt supply chains, cause shortages of critical raw materials and parts, and affect the production and operations of many companies around the world.

3.1. The Shortage

Russia is one of the greatest exporter countries of agriculture and energy, however, due to the economic sanction given by some European countries, there will be enormous influence in the industry chain of related products, for example, fuel, lubricants, and paraffin wax, etc. [9]. For those countries who used to depend on Russian supply but now avoid using it, there will be a shortage of resources in the short run, and they have to find a way to solve this problem.

3.2. The Disruption of the Industry Chain

Meanwhile, those firms who used products from Russia to produce in the past will have to face the problem of being less competitive because the cost of production increases. For them, they may have to move their factories to other countries that cost less or even stop manufacturing. Therefore, the industry chain will reconstitute. The conflict has disrupted global supply chains, especially in industries that rely heavily on raw materials and components from Ukraine and Russia. For example, Ukraine is one of the world's largest steel producers, and conflict has reduced steel production, impacting downstream industries that rely on steel products. Similarly, Russia is a major fertilizer producer, and disruptions in fertilizer production have led to shortages and higher prices in the agricultural sector.

3.3. Geopolitical Risks and Market Uncertainties

Conflicts have also increased geopolitical risk and market uncertainty. Businesses find it difficult to navigate the complex political and economic environment affecting their investment and expansion plans. For example, many companies are reluctant to invest in Ukraine because of the conflict, which leads to a decline in foreign investment. In addition, sanctions by some countries have increased market uncertainty, making it difficult for companies to plan their future activities.

4. The Impact on Inflation Control

The Russia-Ukraine war has also affected the way governments around the world control inflation. The conflict raised the prices of energy and commodities, leading to higher inflation. This has forced many governments to take action to curb inflation, with mixed results.

4.1. The Deterioration of Inflation Rate

As the author mentioned in the paragraphs above and the Figure 1 shows, the price of crude oil and natural gas has been increased significantly. Since they are essential elements in the production industry and take a large proportion in the production cost. In the short term, the production cost of firms will rise dramatically, causing the price level to go up, which will eventually make the inflation

rate higher. The Russia-Ukraine war makes the situation even worse, especially in the context of the high rate of global inflation rate (please see Figure 8).

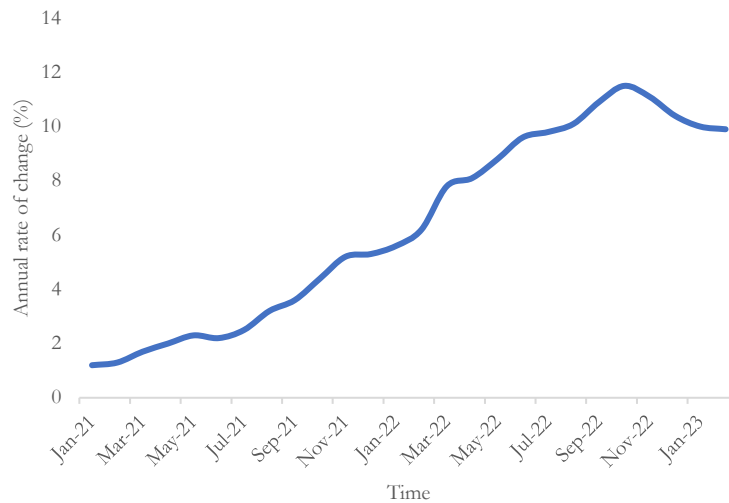


Figure 8: HICP of European Union.
Data source: worldbank.org [10]
Photo credit: Original

4.2. The Difficulty of Decreasing the Inflation Rate

For governments, it is an essential issue to control the inflation rate in an appropriate level. Nevertheless, for European countries and the United States, they cut off the resources supply from Russia, which is a good way of controlling the inflation rate. Due to their avoidance of using Russian products, it becomes more difficult to decrease the inflation rate.

4.3. Policies for Coping with Inflation

4.3.1. Central Bank Policy

Central banks have played an important role in controlling inflation. Many central banks are raising interest rates to curb inflation, hurting economic growth. Higher interest rates lead to higher borrowing costs, reducing investment and consumption.

4.3.2. Fiscal Policy

Governments have also used fiscal policy to keep inflation in check. For example, the government can increase taxes on certain goods to reduce demand and keep prices down. However, this could also lead to a decline in consumption, which could have a negative impact on economic growth.

4.3.3. Supply-Side Policy

Governments are also taking supply-side measures to curb inflation. For example, we can invest in infrastructure to increase the supply of goods and services and reduce their prices. Additionally, they have taken steps to increase competition and reduce monopoly power, which can also lead to lower prices.

5. Conclusion

The ongoing war between Russia and Ukraine is having a severe impact on the global economy. The conflict has disrupted supply chains and caused major shortages of critical raw materials and components. This is affecting many industries such as manufacturing, construction and technology as companies struggle to secure the resources, they need to produce their goods and services.

Moreover, the conflict has also increased geopolitical risks and market uncertainties. Investors are wary of investing in companies operating in or dependent on affected areas where economic growth is slowing. In addition, war-induced instability has fueled inflation, making it difficult for consumers to obtain essential goods and services.

The impact of the Russia-Ukraine War on the world economy was enormous. War has ravaged countries around the world, and supply chain disruptions have led to a decline in exports and a surge in imports in many countries. This led to slowing economic growth and rising unemployment. Additionally, companies have had to reassess their investment plans and adapt to the changing economic and political environment. Companies that had previously invested heavily in affected regions are now being forced to reconsider their options and may shift operations to more stable regions.

It is important that governments and businesses around the world work together to resolve conflicts peacefully. Protracted conflicts will only further disrupt the global economy and hurt both businesses and consumers. Diplomatic efforts must be made to mitigate conflicts and promote stability in the affected regions. The international community can play an important role in facilitating negotiations and supporting initiatives to find peaceful solutions. In summary, the war between Russia and Ukraine has had far-reaching effects on the global economy. Conflicts have disrupted supply chains, caused shortages of critical raw materials and components, heightened geopolitical risks and market uncertainty, and accelerated inflation. Therefore, it is important for all parties to work together towards a peaceful resolution of the dispute in order to minimize its impact on the global economy.

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