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The Impact of Russia-Ukraine War on The Egyptian Stock Market

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Abstract

The study aims to investigate the Egyptian stock market response to the Russia-Ukraine war, by employing GARCH model on firms registered in the Egyptian Stock Market for a period from March 2022 to March 2023. It is expected that the war will have a significant negative impact on the Egyptian economy through food, energy, and Tourism, which will have a significant implication on the Egyptian stock market, in addition to the direct effect of the war on the Egyptian stock market. the Russian and Ukraine markets represent 40% of the Egyptian tourism market. Therefore, Egypt witnessed an increase in food and energy prices which affects the state general budget and foreign currency reserve. The inflation and supply chain disruption resulted from the war affect the performance of Egyptian companies which affect negatively on stability of Egyptian stock market and lead to exit of foreign investors.

Keywords: Russia-Ukraine war, Egyptian Stock Market, Egyptian Economy.

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1- Introduction

On 24 February 2022, Russia officially attacked Ukraine after months of military build-up near the Russian–Ukrainian border. Russia started the most significant conflict in Europe since Second World War. This happens during a most crucial time: the recovery process of the global economy from the coronavirus disease 2019 (COVID-19) pandemic (Le, Mettenheim, Goutte, & Liu, 2022).

The Russia invasion of Ukraine on Feb 24, 2022, caused turbulence in stock markets and negatively affected the returns of global stocks (Boubaker, Goodell, Pandey, & Kumari, 2022). (Caldara, Conlisk, Iacoviello, & Penn, 2023) suggested that wars and associated risks can destroy human and physical capital, shift resources to less efficeient use, divert international trade and capital flows, and disrupt global supply chains. In addition, uncertainty about the range of outcomes of adverse geopolitical events may weigh on activity, delay firms' investment and hiring, erode consumer confidence, and tighten financial conditions.

In addition to the human toll and impact of the events on entities that have operations in Russia, Ukraine, or neighbouring countries or that conduct business with their counterparties, the war is increasingly affecting economic and global financial markets and exacerbating ongoing economic challenges, including issues such as rising inflation and global supply-chain disruption. Because of its broader impact on these macroeconomic conditions, many entities globally may need to consider the effect of the war on certain accounting and financial reporting matters. The degree to which entities are or will be affected by them largely depends on the nature and duration of uncertain and unpredictable events, such as further military action, additional sanctions, and reactions to ongoing developments by global financial markets (Deloitte, 2022).

2- Research problem

Stock markets tend to react drastically to the emergence of geopolitical-type news/events, such as terrorist attacks, wars, and other forms of conflicts (Martins, Correia, & Gouveia, 2023). The two recent crises, the COVID-19 and the Russia-Ukraine conflict haves significantly affected the world economy to a standstill (Hassan, Muneeza, & Sarea, 2022).

The geopolitical threat has reached the highest peak level after the Russian invasion of Ukraine. This conflict is expected to have significant impacts on firms and financial markets as evidence by the adverse effect on investments, aggregate output level, employment, and downside risk and stock market returns, and bond spread (Martins, Correia, & Gouveia, 2023). Furthermore, the present conflict has the particularity of involving an “energy superpower” (Russia). The economic sanctions inflicted on Russia have resulted in a significant increase in the price of energy and in the general level of prices worldwide as a result, the expected impact of the military conflict is considerably broader and deeper when compared with the impact of past political uncertainties and war events (Izzeldin, Muradoglu, Pappas, Petropoulou, & Sivaprasad, 2023).

Egypt is considered one of the countries most affected by this crisis, as Egypt imports abot 80% of its imports of wheat from two countries. Moreover, Egypt suffers because of high energy prices, because Egypt imports a large part of petroleum products for domestic consumption. Tourism will also be affected, given that the Russian and Ukrainian market represent about 40% of the Egyptian tourism market (Abd Elkader, 2022). Therefore, the study focuses on the consequences of these factors on Egyptian financial market.

3- Research question:

To what extent the Egyptian economy is affected by the Russia-Ukraine war and the implications of that on Egyptian stock Market?

4- Research Objectives:

The main aim of the research is to examine the impact of Russia-Ukraine war on Egyptian Stock Market through the following sub-goals:

-Identifying the importance of Russia and Ukraine to the global economy.

-Investigating the effect of the Russia-Ukraine war on Egyptian economy.

-Determining the impact of the Egyptian economy affection by the war on Egyptian stock market.

5-Research Importance:

The importance of research is that provides an explanation of the impact of the Russian-Ukrainian crisis on The Egyptian economy and its implication on the Egyptian stock market which will help decision makers to identify the problem and weaknesses. Therefore, decision makers can make the appropriate decisions order to get out of this crisis.

6-Research Hypothesis:

H_1: the Russia-Ukraine war has not significant impact on the Egyptian Stock Market.

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7-Literature Review

1	**(Caldara, Conlisk, Iacoviello, & Penn, 2023)**
Title	Do Geopolitical Risks Raise or Lower Inflation?
Objective	Investigate whether geopolitical risk increase of decrease inflation
Methodology	Using a structural VAR model estimated on global data from the 1970s.
result	The results show that - Geopolitical risks foreshadow high inflation and are accompanied by lower economic activity. - An increase in military spending and in public debt. - A decline in trade with the rest of the world. - Higher geopolitical risks are also associated with more uncertain inflation and bigger upside risks to inflation
2	**Martin et al (2023)**
Title	Russia-Ukraine Conflict: the effect on European Banks' Stock Market Return.
Objective	Examine the short-term market impact of the beginning of the military conflict between Russia and Ukraine (February 24, 2022) on the largest European listed banks.
Methodology	use a cross-sectional analysis against a set of country- and bank specific variables
results	The results show - A higher negative stock market reaction for Russian listed banks and for foreign banks with a high exposure to Russia. - The magnitude of the stock market reaction to the military conflict is reinforced or mitigated by bank-specific determinants such as size, profitability, risk aversion, operational efficiency level, institutional ownership and exposure to Russia
3	(Izzeldin, Muradoglu, Pappas, Petropoulou, & Sivaprasad, 2023)
Title	The impact of the Russian-Ukrainian war on global financial markets
Objective	analyze the response of European and global stock markets to Russia-Ukraine War.

Methodology	Applying a Markov-switching HAR model on volatility proxies
Results	The Russian-Ukrainian war has led to great volatility across global affordability higher in their agenda. On the food market front, production shortfalls, trade disruptions and increased input costs raise commodity prices, most notably wheat. Ukrainian wheat exports, that account for nearly 10% of global exports, ceased after the closure of Ukrainian Black Sea ports. Exporting wheat overland is more expensive than by sea.
4	**(Mahran, 2023)**
Title	The impact of the Russia–Ukraine conflict (2022) on volatility connectedness between the Egyptian stock market sectors: evidence from the DCC-GARCHCONNECTEDNESS approach
Objective	Investigating the impact of the Russia–Ukraine war (2022) on the volatility connectedness between Egyptian stock market sectors
Methodology	Employs the newest dynamic conditional correlation (DCC)-generalized autoregressive conditional heteroskedasticity (GARCH)-CONNECTEDNESS approach to examine volatility connectedness in a sample of ten sectors in the Egyptian stock market, namely banks, education, food, healthcare, industry, information technology, real estate, resources, transportation and travel, ranging from February 1, 2019 to May 31, 2022.
Results	The findings show that connectedness among the Egyptian stock market sectors varies depending on the time. The average dynamic connectedness measure among sectors in Egypt is 73.24%. This average was 85.63% during the Russia–Ukraine War (2022). The author also shows that the transportation sector is the most significant net transmitter of volatility in the remaining sectors during the Russia–Ukraine War (2022).
5	**(Jreisat, Somar Al-Mohamad, Khaki, & Bakry, 2023)**
Title	The Impact of Ukrainian Crisis on the Connectedness of Stock Index in Asian Economies
Objective	Measuring the dynamic connectedness and spillover effects among emerging stock markets in Asia and the developed stock markets of the US and Europe in the ongoing Ukrainian crisis.

Methodology	This paper utilizes the multiple structural beak test of Bai & Perron (2003) and also depicts the risk and return transmissions among these markets using the Diebold & Yilmaz (2012) method.
Results	The main outcomes of this study indicate that - The stock markets in Asia are less affected by the political crisis in Ukraine as compared to the previous effects during the GFC and COVID-19 periods. - sensitivity of Asian financial markets to global shocks has been weakened in the wake of the Ukrainian crisis in favour of increased resilience of Asian stock indices to external shocks.
6	**(Kumari, Kumar, & Pandey, 2023)**
Title	Are the European Union stock markets vulnerable to the Russia–Ukraine war?
Objective	Examining the market reaction to the 2022 Russian invasion of Ukraine on the leading European Union stock market indices
Methodology	Employing the event study method, cross-sectional and network analysis
Results	The results show that - Adverse event day impact on the stock market indices. - Poland, Denmark, and Portugal exhibit positive cumulative abnormal returns post-event. - A few developed nations are insignificant to the war event. - While the developed markets and NATO nations exhibit positive returns, the economic sanctions and the fear of reduced exports negatively drive abnormal returns during the post-event windows. - Contrary to previous studies, stronger past returns negatively drive the returns during the post-event windows. - Additional analysis on the mapping of financial networks provides relevant insights into systemic integration between EU stock markets, especially during the war.
7	**(Silva, Wilhelm, & Tabak, 2023)**
Title	Trade matters except to war neighbors: The international stock market reaction to 2022 Russia's invasion of Ukraine

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Objective	Investigating the role of international trade and proximity to war in international stock markets during the invasion of Ukraine.
Methodology	Employing DiD designs and panel data comprising 70 stock markets
Results	The results show that - Differences in trade exposure to warring countries (trade effect) have a substantial and negative impact on non-European equity markets but are irrelevant for European markets. - In contrast, differences in the distance to warring countries (proximity effect) have a significant and negative impact on European markets but have no bearing on non-European markets. - The relevance of rent from mineral, natural gas, and oil resources and the relevance of metals, ores, and fuels in exports operate as mitigators of the trade effect.

8-Theoretical background

8.1-The economic importance of Russia and Ukraine to the global economy

Russia and Ukraine play an important role in food production and supplies worldwide. During the period (2016-2020), the Russian Federation occupied the second place (7.5% of global exports) in grain exports after the United States (17.6%), and Ukraine ranked third (7.1%). Moreover, Russia is the largest exporter of wheat in the world, and Ukraine is the fifth largest exporter of wheat (Sun & Zhang, 2022)

About 50 countries of the world depend on importing at least 30% of their wheat needs from the Russian Federation and Ukraine, and many of these countries are least developed countries, low-income countries or food-deficit countries. Also, many countries in Europe and Central Asia depend on Russia for more than 50 percent of their fertilizer supplies. Therefore, Logistical imbalances in supply chains and restrictions on Russian exports will affect food security in these countries (Martin et al. 2023).

Russia is also a major player in the global energy market, as it ranked first in the world in mineral fuel exports (coal, petroleum and natural gas) during the period (2016-2020). There has been a sharp decline in the supplies of these primary commodities, which will affect the construction, petrochemical and transportation sectors and lead to a regression in the global economic growth rate (Elsafty & Mahmoud, 2022).

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8.2- The economic and financial implications of Ukraine-Russia war

The impact of the ongoing military conflict between Ukraine and Russia is considerably broader and deeper when compared to the impact of previous wars and political events since World War II, for European countries, with significant impacts on the European economy and stock markets, which are now explained. One of the most important economic impacts is the increase in oil and gas prices (Martin et al, 2023). Russia is an 'energy superpower'– as is the world's second-largest oil producer and the world's leading natural gas producer and sells most of its energy to European countries (Shang & Fu, 2022). The ongoing war was responsible for a sudden increase in the price of crude oil - before the beginning of the conflict (24 February) it was quoted around 85 USD/barrel, rising to a price of 120 USD /barrel five days later. The recent conflict led to what was designated as 'external shocks' in the energy markets and to a sustained rise in energy prices, with the prices of energy rising due to either the disruption of supply or the increase in preventive demand (Izzeldin, Muradoglu, Pappas, Petropoulou, & Sivaprasad, 2023).

The second mechanism through which war risk may impact in the financial markets and in the overall economy is throughout the disruptions of the global supply chains. As mentioned by (Hassan, Muneeza, & Sarea, 2022) Russia is not only the largest supplier of oil and gas, but also of metals (such as nickel and palladium) and fertilizers. In turn, Ukraine is an important world producer of wheat, sunflower oil, and corn, among other commodities. The military conflict caused a sharp reduction in the supplies of these goods, causing a sharp rise in commodity prices.

The disruptions in the global supply chain and the accompanying sanctions against Russia, resulted in an increase of uncertainty, with a negative ripple effect on the European economy and business performance (Hassan, Muneeza, & Sarea, 2022). The literature reveals that there are several channels through which increased uncertainty can affect the economy. First, given the irreversibility of the investment, the increase of uncertainty can lead firms to postpone and/or forgo investment, in order to make better-informed investment decisions once the economic outlook is clearer Kumari, V., Kumar, G., Pandey , D.. Second, in response to an uncertainty shock which can negatively affect future income, economic agents seek to save more and consume less. Third, the increase in uncertainty tends to be interconnected with financial "frictions" (such as borrowing constraints), which can have powerful effects on economic activity. Arguably, the financial conditions for firms and households typically tending to deteriorate after an uncertainty shock (Lo, Marcelin, Bass`ene, & S`ene, 2022).

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8.3- The Russian-Ukrainian crisis and its impact on the Egyptian economy

The Russian-Ukrainian crisis will have negative impacts on the Egyptian economy through food prices, energy and tourism (Abd Elkader, 2022); (Elsafty & Mahmoud, 2022).

- The expected effects of the crisis on food:

Egypt is one of the countries severely affected by the Russian-Ukrainian crisis, because it relies heavily on imports from the markets of Russia and Ukraine. Wheat comes at the top of the list of grains that Egypt imports from the Russian Federation and Ukraine, if Egypt imported 80% of its imports of wheat from the two countries on average during the period (2016-2020). It is worth noting that Egypt is the largest importer of wheat in the world during the period (2016-2020).

The expected effects of the crisis on energy:

The Russian-Ukrainian crisis caused an increase in energy prices, which were already high before the crisis. In April 2021, the OPEC basket price was $63.24. This price continued to rise due to increased demand as a result of the recovery from the Corona pandemic, supply chain bottlenecks, and climate change policies until It reached about $94 before the Russian-Ukrainian crisis at the beginning of February 2022, then rose due to the crisis to $113.48 per barrel in March 2022.

The Russian-Ukrainian crisis will add new burdens to the state's general budget, as the budget was prepared on the basis of a barrel price of 62 dollars, at a time when the crisis led to the price of a barrel exceeding 120 dollars.

The expected effects of the crisis on tourism

Tourism revenues represent a very important source of foreign currency for the Egyptian economy. Egyptian tourism will be severely affected as a result of the Russian-Ukrainian crisis as a result of the suspension of Ukrainian airspace, in addition to the suspension of part of the Russian airspace that includes the theater of operations, in addition to the impact of other nationalities from this war. Ukrainian tourism is of great importance to Egypt and has supported Egypt since the cessation of Russian tourism in 2015 until now, and has been able to continue the work of Sharm El-Sheikh and Hurghada hotels without closing.

The most important expected economic effects of the Russian-Ukrainian crisis on the macroeconomic indicators of the Egyptian economy

The most important economic effects of the Russian-Ukrainian crisis on the Egyptian economy can be summarized Below (Abd Elkader, 2022):

1) **An increase in the state's general budget deficit:** The Russian-Ukrainian crisis is expected to lead to an increase in the state's general budget deficit in Egypt, due to the increase in food and energy prices. The general budget will bear these expenses, and the state will allocate additional resources in the budget. To compensate state workers for this increase.
2) **An increase in the trade balance deficit:** It is expected that the trade balance deficit will increase as a result of the foreign currency liabilities resulting from the increase in food and energy prices. The decrease in tourism revenues will also lead to a decrease in the service balance surplus in Egypt.
3) **Decrease in foreign exchange reserves:** The crisis has already led to a decrease in the volume of foreign exchange reserves. This came as a result of paying off external debt obligations, covering the exit of foreign investors from the Egyptian market after the crisis, and the import of strategic commodities.
4) **High inflation rates:** The Russian-Ukrainian crisis led to a significant rise in the prices of most imported and domestic commodities.
5) **The high cost of living for the Egyptian citizen:** The high inflation rates resulting from the crisis will lead to a decrease in the real income of the Egyptian citizen, and thus an increase in the cost of living.

8.4- The impact of the Russia-Ukraine war on the stock market

The ongoing Russia-Ukraine war is unique in nature, and differs remarkably from past wars, terrorist acts, and conflicts between nations. This means significant impacts on firms and financial markets, with adverse effects on investment, employment, and downside risks, equity returns and bond spreads (Martins, Correia, & Gouveia, 2023).

According to (Phan, Tran, & Iyke, 2022) the increase of geopolitical risk tends to affect stock market stability. Martin et al (2023) show that an increase of uncertainty could cause panic in the financial market by reducing liquidity provision. An increase in uncertainty leads an increase in information asymmetry, making it difficult for investors to differentiate well from bad investments, and thus causing a reduction in lending, investment, and economic activity. Investor sentiment fluctuations can significantly decrease stock market stability. Since geopolitical risk is linked to investor sentiment fluctuations, lower credit growth, profit variability, and higher probability of default (Caldara, Conlisk, Iacoviello, & Penn, 2023), are expected to make stock market more unstable or fragile. Finally, given the expected damaging scale and length of the military conflict between Russia and Ukraine and the presence of an 'energy superpower' in the conflict, it was clear to investors that this conflict would lead to an increase in energy prices. The literature shows that changes in energy prices have opposite impacts on firm's performance and risk in energy importing countries compared to energy exporting countries. For energy importing countries, an increase in the price of energy will lead to a decrease in economic activity due to the increase in the cost of production inputs, thereby leading to an economic slowdown or stagnation, with negative consequences for the financial market (Izzeldin, Muradoglu, Pappas, Petropoulou, & Sivaprasad, 2023).

Conclusion

The Russian-Ukraine war has a significant negative impact on the global economy and financial markets. Egypt is one of countries most affected by the war because its imports depend mainly on the Russia and Ukraine markets. Egypt imports approximately 80% of its imports of wheat from the two countries, in addition to its imports of energy. Moreover, the Russia and Ukraine market represent 40% of Egyptian tourism market. Therefore, Egypt witnessed increase in food and energy prices which affects the state general budget and foreign currency reserve. The inflation and supply chain disruption resulted from the war affect the performance of Egyptian companies which affect negatively on stability of Egyptian stock market and lead to exit of foreign investors.

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