Impact of Russia Ukraine war on stock market in India (A study on NSE nifty 50)

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Abstract

The war between Ukraine and Russia has had a significant negative impact on the world economy because it has caused financial repercussions not just in Russia and Ukraine but also in other countries. Due to their status as important international players, both nations contribute significantly to world trade mainly in the export of commodities like wheat, crude oil, industrial raw materials, and so forth. After Russia attacked Ukraine on February 24, 2022, stock markets all across the world fell precipitously, including those in India. The objective of this paper is to find out the impact of Ukraine Russia on nifty 50 index of Indian stock market. Daily closing price of nifty 50 indices of 120 days before and after the war has been considered for the study. The data has been collected from NSE of India website. This study found out that there is significant relationship between stock market index and conflict between Ukraine and Russia.

Keywords: Stock market, nifty, conflict, economy

Introduction

Paradoxically, The Russian military invasion is a planned event as much as an unplanned adventure. The security crisis between the West and Russia, which started in the fall of 2021, is one thing. With a significant escalation in Ukraine, bilateral security and peace are plainly under danger. Regrettably, Ukraine has evolved into the main point of friction between Russia and the West. The Russian invasion of Ukraine had a particularly negative impact on the world oil market. As oil-dependent governments suffered, major oil-producing states, including Russia itself, benefitted from a rise in world oil prices that had started even before the conflict (Kusa, 2022) [5]. Although this crisis has had a deadly effect on Russia's economy, it is now beginning to have an effect on the global economy. Due to the rapid rise in oil, natural gas, and food prices just a few days into this crisis, which is already wreaking havoc on the majority of global economies, inflation is quickly growing (Mbah, 2022) [6]. The international economy is at risk from the conflict in Ukraine because it will harm GDP and drive up inflation at a time when it is already high. No major economy has a significant trade relationship with Ukraine, although some of Russia's top import partners are China, the US, Germany, France, and Italy. The conflict has an impact on the world economy in a number of ways. (Ospanova, 2022) [9]. Regarding the economic effects of war, location matters. These spillovers will undoubtedly have an impact on geopolitics and might even change how the conflict plays out (Federle & Sehn, 2022) [10]. If a battle starts nearby, catastrophe risk will grow. Stock markets will respond because they are sensitive to changes in catastrophe risk. Such wars—as long as they occur on a nation's territory—are responsible for the worst economic (Barro, 2006) [1]. The value of the Indian Rupee has been negatively damaged by conflict. The country's capacity to protect its currency and residents' livelihoods was constrained by its reliance on imports for essential supplies of oil, food, and defence equipment. India has to take use of its population advantage to strengthen its currency and ensure its security in terms of food, energy, and weapons (Meena, 2022) [11]. In neighbouring countries Ukraine and Russia as well as those UN members that urged a stop to Russia's incursion in Ukraine, these consequences were particularly noticeable. Overall, we offer the first empirical proof of how the Ukraine-Russian conflict has affected global stock market results (Boungou & Yatié, 2022) [3].
The effects of war greatly hurt the economy. The effects of wars on money and debt are made worse by the possibility of inflation and deregulation (Nagarjuna, 2022) [8]. India needs a strong and inclusive banking industry if it is to become a developed economy, as it is a developing country. The conflict between Russia and Ukraine has affected the world's supply chains and exchange rates (Meena, 2022) [7]. For global stock market indices, invasion produced negative cumulative abnormal returns, although with variable results (Boubaker et al., 2022) [2].

### Literature Review

**Pandey, Kumar (2022)** [3], “Russia-Ukraine war and the global tourism sector: A 13-day tale.”

Experimenters delved the goods of the conflict between Russia-Ukraine in 2022 on the global Sightseer assiduity stocks using the event exploration methodology. According to the cross-sectional exploration, colourful country and establishment-specific factors have a considerable influence on the accretive anomalous returns.

**Haong Tien (2022), “Russia-Ukraine war and risks to global supply chains.”**

This study discovered the state of the worldwide force system during the time of war, offering directorial counter accusations and recommendations to enhance the global force chain. In order to give operation counter accusations and suggest some ways to decrease the pitfalls for the global force chain, this exploration is grounded on information analysis on the being state of the global force chain.

**Ospanova (2022) [9], “Economic Impact of Russia – Ukraine War.”**

The geopolitical terrain has been radically altered by Russia's irruption of Ukraine on February 24. While contributing just1.8% and 0.1% of the global GDP, independently, in 2021, Russia and Ukraine dominate product of oil painting, natural gas, wheat, sludge, sunflower oil painting, fertiliser, timber, and neon gas. This study used the global econometric model to estimate these spillover goods (NiGEM).

**Mbah, Wasum (2022) [6], “Russian-Ukraine 2022 War: A Review of the Economic Impact of Russian-Ukraine Crisis on the USA, UK, Canada, and Europe.”**

The Social Contract and Interest Group propositions are used in this study to illuminate the causes of the current extremity. The profitable goods of this extremity have been disastrous for Russia's frugality, and they're now starting to be felt by the rest of the globe. Due to the rapid-fire rise in oil painting, natural gas, and food prices just many days into this extremity, which is formerly ruinous most global husbandry, affection is snappily growing.

**Kusa. “Russia-Ukraine War: Harbinger of a Global Shift A Perspective from Ukraine.”**

Paradoxically, the Russian military irruption is both a planned action and an unexpected adventure. On the one side, there's the security extremity between the West and Russia, which started in the fall of 2021. 1 With a significant escalation in Ukraine, bilateral security and peace are plainly under peril.

**Tiwari, Chand (2022) [10], “Impact of Russia Ukraine war on exchange rate in India.”**

The influence of the Russian-Ukraine conflict on the value of the Indian Rupee against the US bone is examined in the essay. For the study, secondary data were consulted. The analysis takes into account the rupee exchange rate 120 days ahead and after the inception of the Russian-Ukrainian war. The t test is used to assay data. It was discovered that the conflict had a negative impact on the value of the Indian Rupee. Dependence on significances for essential inventories of energy, food, and defence outfit limited the nation's capacity to cover its currency and residents' quality of life.

**Gourio (2009) [11], “Disasters risk and business cycles.”**

The study established two straightforward theoretical conclusions first, the threat of catastrophe doesn't impact the line of macroeconomic summations when the chance of disaster is constant- a” separation theorem” between macroeconomic variables and asset values in the spirit of Tallarini (2000) [12]. Second, disaster probability shocks which causes changes in threat decorations over time — are observationally analogous to shocks to preferences. Using observed means prices, the study extrapolates the liability of disaster and feeds it into the model. The shift in this liability over time seems to explain a sizable portion of the dynamics of the business cycle, particularly during ages of abrupt declines in product and investment as 2008-IV.

**Verma, Bansal, Stakić, Singh (2022) [13], “the impact of the Russia-Ukraine conflict on stock market performance: event study analysis.”**

Examining the short-term volatility and the Indian stock market's reaction to the start of the military conflict between Russia and Ukraine was the purpose of this study. In order to estimate the instantaneous request response, the National Stock Exchange of India (NSE) used the event research approach, concentrating on the three important industries of information technology (IT), banking, and energy. The performance of the stock request during the week prior to the event day and the following week was compared, and the accretive abnormal return rates were calculated. Event studies have both employed the request-acclimated return model (scar) and the mean-acclimated return model (scar) (MKAR).

**Bougou, Yatie (2022) [3], “The impact of the Ukraine-Russia war on world stock market returns.”**

This essay examined how the current conflict between Ukraine and Russia has affected global stock request indicators. We constantly find a negative correlation between the Ukraine-Russian war and global stock request returns using diurnal stock request returns in a sample of 94 nations, which spans the period from 22 January 2022 to 24 March 2022. Their findings suggested that there would be a lesser effect when war broke out, particularly in the first two weeks following the irruption of Ukraine on February 24, 2022. In nations skirting Ukraine and Russia as well as those UN members that prompted a stop to Russia's irruption in Ukraine, these consequences were particularly conspicuous.

**Federle, Müller, Meier, Sehn (2022) [4], “Proximity to War: The stock market response to the Russian invasion of Ukraine.”**

A study set up that the stock request's response to Russia's irruption of Ukraine included a” propinquity penalty.” Companies' equity returns in a four-week window around
the inception of the war tend to be more negative the closer nations and even companies within countries are to Ukraine. When spillovers from commerce are taken into account, each fresh 1,000 kilometres results in an increase in stock returns of 1.1 chance points. A lot of studies have been conducted in this area. Different investigators used different sectors, different methodology and different time period. We'll study the impact of this war on nifty 50 indicator of Indian stock request and 120 days ahead and after the war has been considered as time period. This paper is divided into 5 sections which are (1) Introduction (2) Literature Review (3) Research Methodology (4) Data Analysis (5) Findings and Conclusion

**Research Problem**

To find the impact of this war on nifty 50 index of Indian stock market and 120 days before and after the war.

**Hypothesis**

**H₀**: There is not a significant difference between Nifty 50 index before and after Ukraine and Russia war

**Research Methodology**

The exploration design of this paper is descriptive. Secondary data has been used for this exploration. Nifty 50 indicator data have been collected from nseindia.com. The inception of the conflict, or February 24, 2022, is used as the event date. The analysis uses the nifty 50 indicator for the 120 days ahead and after the inception of the conflict. The analysis takes into account changes in nifty on a diurnal base. Pair-wise t test is used to assay the data.

![Graph showing closing price of Nifty 50 index before and after the conflict](Source: NSE website)

**Fig 1**: Closing price of Nifty 50 index

Before and after the conflict, the closing price of the National Stock Exchange's Nifty 50 index.

![Graph showing daily changes in Nifty 50 index](Source: NSE website)

**Fig 2**: Daily changes in Nifty 50 index
Daily fluctuations in the National Stock Exchange's Nifty 50 index before and after the conflict.

The continuous hostilities between the two countries, coupled with an increase in the price of crude oil, could have a negative effect on India's financial stability. The bulk of refineries in India are not equipped to handle the heavy crude oils that Russia exports.

**Table 1:** Shows two sample before war and after war

<table>
<thead>
<tr>
<th>t-Test: Paired Two Sample for Means</th>
<th>Before war</th>
<th>After war</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>17588.55083</td>
<td>16661.03375</td>
</tr>
<tr>
<td>Variance</td>
<td>164177.2843</td>
<td>490003.489</td>
</tr>
<tr>
<td>Observations</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-0.04089906</td>
<td></td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>12.34513693</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>2.39776E-23</td>
<td></td>
</tr>
<tr>
<td>t Critical one-tail</td>
<td>1.657759285</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>4.79551E-23</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>1.980099853</td>
<td></td>
</tr>
</tbody>
</table>

Computed from secondary data

**Findings**

There is a significant difference in Nifty 50 index after Ukraine and Russia war. 120 observations have been collected before and after Ukraine and Russia war. Tstat (12.34513693) is greater than critical values of ‘t’ one tail (1.657759285) and also critical value of two tail (1.980099853). Therefore the null hypothesis is accepted. War affected the stock market significantly.

**Conclusion**

The full-fledged Russia-Ukraine conflict and the harsh sanctions imposed on Russia as a result of its invasion of Ukraine crushed the stock markets worldwide, including India's Nifty 50. This study provides empirical evidence for it because the null hypothesis was found to be false at a level of significance of 0.1. The situation exacerbated as a result of the sharp rise in the price of oil and other commodities, which led to investor fear. Findings of this paper shows that conflict between Ukraine and Russia adversely affected Indian stock market. The Indian stock market is impacted by the country's reliance on imported crude oil, edible oil, fertilisers, and defence supplies. To become self-sufficient in energy, weapons, gold, and edible oils, the nation must develop its own indigenous methods. The study's conclusion is that in order to offset the negative consequences of the war, investors should put money into index-based businesses.

**References**