Research Inspiration
(Peer-reviewed, Open Access and indexed)
Journal home page: www.researchinspiration.com
ISSN: 2455-443X, Vol. 10, Issue-II, March 2025

Impact of Russia-Ukraine War on Indian Economy: An Analytical Study

Prashant Kumar Singh [a,*], **Mayanka**[b,**], **Jatin Goel**[c,***], **Dr. Sushant Gupta**[d,****]

[a]*Student of the Integrated BBA-MBA, Lovely Professional University, Phagwara, Punjab, India.*
[b]*Student of the Integrated BBA-MBA, Lovely Professional University, Phagwara, Punjab, India.*
[c]*Student of the Integrated BBA-MBA, Lovely Professional University, Phagwara, Punjab, India.*
[d]*Assistant Professor (BBA-MBA), Lovely Professional University, Phagwara, Punjab, India.*

KEYWORDS

Russia-Ukraine War, Indian Economy, Global Conflict, Crude Oil Prices, Inflation, Supply Chain Disruption, Trade Relations, Import and Export, Geopolitical Tensions, Foreign Direct Investment (FDI), Rupee Depreciation.

ABSTRACT

The outbreak of the Russia-Ukraine war in early 2022 marked a pivotal moment in contemporary geopolitics, triggering a cascade of economic disruptions that reverberated across global markets. As two of the world's leading exporters of essential commodities such as energy, wheat, and fertilizers, the ongoing conflict between Russia and Ukraine has severely strained global supply chains, increased market volatility, and heightened inflationary pressures worldwide. This capstone project provides a comprehensive analysis of the war's economic repercussions on India—one of the fastest-growing emerging economies with deep strategic and economic ties to both Russia and the West. The study specifically focuses on four critical economic indicators: Foreign Institutional Investment (FII), Foreign Direct Investment (FDI), crude oil imports, and market returns, represented by the Nifty 50 index. By employing a combination of secondary data collection, statistical tools (such as SPSS-based paired t-tests), and in-depth literature review, the report evaluates the pre-war and post-war shifts in these variables from the year 2017 to 2024. Findings indicate that FII experienced only marginal change, with no statistically significant variation observed, suggesting investor caution or short-term neutrality in portfolio investments. Conversely, FDI recorded a substantial increase post-war, highlighting growing foreign confidence in India's long-term economic prospects, potentially driven by policy reforms and global diversification strategies. Crude oil imports from Russia surged significantly, as India capitalized on discounted prices amidst Western sanctions on Russia. However, this strategic shift raised critical concerns regarding India's energy security, geopolitical risks, and overdependence on a single supplier. Interestingly, market returns showed the most remarkable growth, with a statistically and practically significant post-war rise—indicating resilience in India's capital markets, supported possibly by speculative inflows, domestic optimism, and favourable macroeconomic policies. Beyond the quantitative analysis, the report also delves into India's diplomatic stance of strategic neutrality and explores its broader managerial and policy implications. It reflects on India's evolving role in global geopolitics and its attempts to strike a balance between safeguarding economic interests and navigating complex international alignments. The study concludes by emphasizing the urgent need for energy diversification, trade route realignment, and the development of resilient domestic supply chains. It advocates for proactive policy frameworks that not only cushion the impact of external shocks but also enhance India's preparedness in an increasingly uncertain and multipolar global economy.

1. Introduction

The ongoing conflict between Russia and Ukraine, which escalated dramatically in early 2022, has profound global implications, extending even to remote economies such as India's. This war has disrupted established supply chains, heightened

* **Corresponding author**
E-mail: prashantimba4@gmail.com (Prashant Kumar Singh). https://orcid.org/0009-0003-7227-8933
DOI: https://doi.org/10.53724/inspiration/v10n2.02
Received 8th Feb. 2025; Accepted 15th Feb. 2025
Available online 30th March 2025

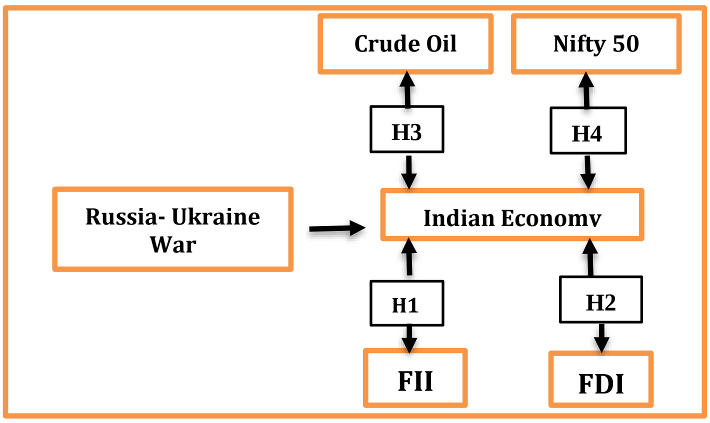
commodity prices, and affected international trade dynamics, all of which are crucial to India's economic stability and growth trajectory. As one of the world's fastest-growing economies, India faces unique challenges in navigating the tumultuous geopolitical landscape, particularly in sectors such as energy, agriculture, and defense. The conflict has resulted in increased dependency on alternative energy sources, food security concerns, and shifts in defense procurement. Additionally, the war underscores the intricate balance that India must maintain between its strategic partnerships and domestic economic priorities. Thus, a comprehensive analysis of these multifaceted impacts will illuminate the ways in which India's economy is being reshaped by external shocks, necessitating adaptive policy responses.

2. Research Methodology

2.1 Objectives

1. To analyse the impact of the Russia-Ukraine war on pre- and post-war FII and FDI inflows and outflows in India.
2. To examine the effect of the Russia-Ukraine war on pre- and post-war crude oil prices imported by India.
3. To assess the influence of the Russia-Ukraine war on market returns in India.

2.2 Conceptual Framework



2.3 Source of Data

The data for this study was collected from various reliable secondary sources. Foreign Institutional Investment (FII) figures were obtained from CDSL India, while Foreign Direct Investment (FDI) data was sourced from the Department for Promotion of Industry and Internal Trade (DPIIT). Crude oil prices were collected from the Petroleum Planning and Analysis Cell (PPAC) and Open Government Data (OGD) platforms, both in USD per barrel and in INR per barrel. Additionally, Nifty 50 index data representing market returns was retrieved from the National Stock Exchange (NSE) via Kaggle.

2.4 Sample Size

For the purpose of this study, data on Foreign Institutional Investment (FII), Foreign Direct Investment (FDI), crude oil prices, and market return fluctuations have been analysed over the period from 2017 to 2024.

2.5 Tools and Techniques

To analyse the economic impact of the Russia-Ukraine war, statistical techniques were employed using IBM SPSS software. A paired t-test was applied to determine whether there was a significant difference in key economic variables—namely FII, FDI, crude oil prices, and market returns (Nifty 50)—before and after the onset of the war. This method is suitable for comparing two related samples or repeated measurements on the same subjects under different conditions (pre-war and post-war in this case). The test helps in identifying whether the observed changes are statistically significant, thereby supporting the research objectives.

2.6 Variables

Independent Variable:

(1). **Russia-Ukraine War:** The geopolitical conflict between Russia and Ukraine, which began in 2022, serves as the independent variable in this study. This war has caused significant disruptions in global supply chains, leading to volatility in commodity prices and economic uncertainty worldwide.

Dependent Variables (Based on Monthly Data from 2017 to 2024):

(1). **Foreign Institutional Investment (FII)** net flows in India.

(2). **Foreign Direct Investment (FDI)** net flows in India.

(3). **Crude Oil Prices** for oil imported into India, measured in INR per barrel.

(4). **Market Returns,** represented by the **Nifty 50 index.**

3. Russia

Extending across both Eastern Europe and northern Asia, Russia (its capital is Moscow) is the world's largest country by land area. Moscow is the political and economic centre of Russia, with St. Petersburg being the second-most important city of the country and famous for its cultural heritage history. Russia is a country rich in resources; it has plenty of tundra forests and gorgeous mountains. The government in Russia is a semi-presidential republic, where Vladimir Putin has established himself as the most powerful and domineering politician for more than twenty years. Russia's economy is powered mostly by its oil, gas and mineral exports that in turn give it leverage to dictate the price on the global energy market. Hence, Russia, as a permanent member of the UN Security Council and a major power in the world, is involved worldwide in international politics. But how much longer can issues like political suppression and tensions with Western nations be swept under the rug— and especially the annexation of Crimea in 2014 and invasion of Ukraine in 2022, including how they have reverberated on the foundations not just of Russia, but of the global economy? Russia— a large, complicated power with an identity— is depicted as a more problematic country, with its issues, but not as a dangerous rogue power.

4. Ukraine

Ukraine, with one of the oldest cities in Europe as its capital, Kyiv (Kiev), is a large country in eastern Europe. It is mainly known for its rich cultural heritage, fertile agricultural lands, and strategic geopolitical position. It is the second-largest country in Europe by land area, bordered by Russia to the east and several European Union countries to the west. Ukraine became an independent nation in 1991 after the dissolution of the Soviet Union. Since then, it has struggled with serious issues related to political instability, corruption, and economic challenges. Ukraine's economy depends on its agricultural exports, particularly wheat and sunflower oil, earning it the nickname "the breadbasket of Europe". With the strong international support for sovereignty and closer ties with the European Union and NATO, Ukraine is able to show resilience to the war.

5. Indian Economy

The Indian economy is known to be a mixed economy. It is the fifth largest in the world by GDP (nominal) and the third largest by purchasing power parity (PPP). It has a strong services sector (contributing over 50% of GDP), a growing industrial base, and a significant agricultural sector. Key drivers include IT services, pharmaceuticals, textiles, and agriculture. India is also one of the fastest-growing major economies, with a focus on digital transformation, infrastructure development, and renewable energy. However, challenges like income inequality, unemployment, and infrastructure gaps persist.

6. Impact of the Russia-Ukraine War Globally

The world-famous Russia-Ukraine war has not just impacted the respected nations, but has also made the whole world economy suffer. The countries that are the most affected include neighbouring countries like Poland, Moldova, Romania, Hungary, and Slovakia, which are seen straining their resources and infrastructure due to the increased number of Ukraine refugees. Apart from that, African and Middle East nations like Egypt, Lebanon, and Yemen have faced increased shortages of food and rising inflation due to the major disruptions in the food supplies as both Russia and Ukraine were the major exporters of wheat, corn, and sunflower oil to these nations. Many European countries, mainly Germany and Italy had faced skyrocketing prices of natural gas which was imported from Russia. Syria, North Korea, and Venezuela, which have close political ties with Russia, have faced a lot of international pressure and isolation due to their support for Russia's actions. Overall, these nations and many other economies of the world have faced serious issues regarding inflation, shortage of natural gas, crude oil, and basic food items, and increased prices of the respected commodities.

7. Russia-Ukraine Relations

Russia and India have shared strong historic-political and economic relations for decades.

Historic-political Relations (PRE-WAR):

- Russia (formerly Soviet Union) supported India on serious matters like Kashmir and during the 1971 Indo-Pak war.
- The two countries share a strong strategic partnership, focussing on defence, energy, and technology cooperation since 1971 after the Treaty of Peace, Friendship, and Cooperation.
- Russia has always supported India's bid for a permanent seat in the UN Security Council.
- Both Countries are active members of BRICS (Brazil, Russia, India, China, South Africa), SCO (Shanghai Cooperation Organization), and the G20.
- India has refrained from openly supporting Russia during multiple UN votes, emphasizing its strategic autonomy, which was criticised by Western allies but has been appreciated by Russia.
- The war has brought India and Russia even closer as it seeks to diversify its partnerships amid Western isolation.
- Sergey Lavrov, the foreign minister of Russia had high-level visits to India in 2022, which have reinforced bilateral ties.
- India has strengthened its engagement with the West (e.g., Quad alliance with the US, Japan, and Australia) while maintaining its relationship

with Russia, reflecting its multi-aligned foreign policy.

(1). Economic Relations (PRE-WAR):

- Russia has always cooperated India by becoming its largest arms supplier for decades, contributing to nearly 60-70% of India's military equipment. Some of the key deals include the purchase of the S-400 missile defence system, Sukhoi jets, and nuclear submarines.
- Both nations share deep defence ties that is prominent from the Joint ventures like BrahMos Aerospace, for missile development.
- Russia is a major exporter of crude oil and nuclear energy technology to India.
- Bilateral trade of Russia with India was relatively leeser to India's trade with other partners (around $8-10 billion annually), but there was significant potential in sectors like pharmaceuticals, diamonds, and IT.

(2). Economic Relations (POST-WAR):

- In 2023, Russia became India's largest oil supplier, surpassing traditional partners like Iraq and Saudi Arabia.
- India has significantly increased its imports of discounted Russian crude oil, making Russia one of its top oil suppliers. This has helped India secure cheap energy and Russia bypass Western sanctions. The Rupee-Ruble trade will further help to bypass Western sanctions (removal from the SWIFT international payment system, restricting transactions involving Russian sovereign debt, asset freezes, partial ban on Russian oil imports, complete ban on seaborne Russian oil from December 2022, price cap of $60 per barrel on Russian crude oil by G7, EU, and Australia, banning their airlines, restrictions on using the US dollar or euro, etc) on Russia's financial systems.
- Despite Western pressure, India has continued its defence deals with Russia, including the purchase of the S-400 missile system. However, India is now diversifying its defence imports from US, Israel, and France.
- Bilateral trade has surged post-war, reaching $50 billion in 2023, driven largely by energy imports.

8. Ukraine-India Relations

India and Ukraine relations are friendly but not as deep as with Russia.

(1). Pre-War

- India's diplomatic relations with Ukraine started in 1992 after it recognised the independence of Ukraine after the dissolution of the Soviet Union. From that time, India has always respected and supported the sovereignty of Ukraine, particularly after the Russia's annexation of Cremea in 2014.
- In 2021, Ukrainian President, Volodymyr Zelenskyy, invited Indian Prime Minister, Narendra Modi to visit Ukraine, signaling a desire to strengthen ties with India.
- Bilateral trade between Ukraine and India was moderate with around $2-3 billion annually. India exports pharmaceuticals, machinery and chemicals to Ukraine while Ukraine exports Sunflower oil, chemicals and minerals to India.

- Ukraine was a famous medical education spot for Indian students wit an average of 20,000 students going their each year.

(2). Post-War

- India has provided humanitarian support to Ukraine during war by giving them medical assistance, medicines and other relief services.
- India has also evacuated atkeast 22,000 Indian students during the early phase of the war which was also appreciated by the Ukraine government.
- Ukraine has reduced the export of sunflower oil to India due to the war but India has neutralised the deficiency by switching to other nations like Argentina and Russia.
- India's major import of crude oil from Russia has raised tensions with Ukraine.
- Ukraine has shown interest in India in getting assistance after the post war reconstruction phase.

9. FII (Foreign Institutional Investment):

FII refers to investments made by foreign institutional investors, such as mutual funds, pension funds, hedge funds, and insurance companies, in the financial markets of a country. These investments are typically made in stocks, bonds, and other financial instruments. FIIs play a significant role in the liquidity and stability of a country's financial markets.

Table 1.1: Tabular Data of FII Inflows in India (2017-2024):

Year	FII Inflows (in USD billion)
2017	7.2
2018	4.5
2019	14.2
2020	23.0
2021	3.9
2023	6.5
2024	8.0

10. FDI (Foreign Direct Investment):

FDI refers to investments made by foreign entities in the physical assets or infrastructure of a country, such as factories, businesses, or real estate. Unlike FII, FDI is typically long-term and involves a significant degree of control or influence over the business operations in the host country.

Table 1.2: Tabular Data of FDI Inflows in India (2017-2024):

Year	FDI Inflows (in USD billion)
2017	60.2
2018	64.4
2019	74.4
2020	81.7
2021	82.0
2022	84.8
2023	85.5
2024	88.0

11. Crude Oil: Crude oil is a naturally occurring, unrefined petroleum product composed of hydrocarbon deposits and other organic materials. It is a vital energy resource used to produce fuels like gasoline, diesel, and jet fuel, as well as various petrochemical products.

Table 1.3: Tabular Data of Crude Oil Imports in India (2017-2024):

Year	Iraq (in million barrels)	Saudi Arabia (in million barrels)	UAE (in million barrels)	Russia (in million barrels)	Others (in million barrels)
2017	450	400	200	50	300
2018	470	420	210	60	310
2019	480	430	220	70	320
2020	460	410	210	80	330
2021	490	440	230	90	340
2022	500	450	240	120	350
2023	510	460	250	150	360
2024	520	470			

12. Results and Discussions

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre war FII	7086.56	36	19574.061	3262.344
	post war FII	6274.47	36	38350.907	6391.818
Pair 2	pre war FDI	25224.42	36	9512.833	1585.472
	post war FDI	33152.94	36	10978.345	1829.724
Pair 3	pre war Crude oil prices	5095.004319	36	595.8149949	99.30249915
	post war Crude oil prices	7277.801950	36	976.4903227	162.7483871
Pair 4	pre war market returns	10675.44	36	923.319	153.887
	post war market returns	19472.03	36	2334.789	389.131

Table 4.1: Paired Samples Statistics of Pre- and Post-War Economic Indicators
(FII, FDI, Crude Oil Prices, and Market Returns – N = 36)
(Source: SPSS Output, Primary Data Analysis)

Interpretation:

Table 4.1 states the Pre-war and post war means and standard deviation of Pre and post war

The paired samples statistics table presents a comparison of four key economic indicators before and after a war. In Pair 1, Foreign Institutional Investment (FII) decreased from a pre-war mean of 7086.56 to 6274.47 post-war, indicating reduced foreign portfolio investment. Additionally, the standard deviation nearly doubled, suggesting increased volatility and uncertainty in FII after the war. Pair 2 shows that Foreign Direct Investment (FDI) rose from 25224.42 to 33152.94, implying stronger long-term investor confidence or policy incentives post-war. However, this increase was accompanied by slightly higher variability. Pair 3 focuses on crude oil prices, which saw a sharp rise from 5095.00 pre-war to 7277.80 post-war. This increase, along with a jump in standard deviation, reflects heightened global supply concerns and market instability due to the war. Finally, Pair 4 reveals that average market returns surged from 10675.44 to 19472.03 in the post-war period. Although this suggests a market rebound or speculative growth, the significant rise in standard deviation also points to increased market volatility.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pre war FII & post war FII	36	-.259	.127
Pair 2	pre war FDI & post war FDI	36	.244	.152
Pair 3	pre war Crude oil prices & post war Crude oil prices	36	-.420	.011
Pair 4	pre war market returns & post war market returns	36	.831	<.001

Table 4.2: Paired Samples Correlations Between Pre- and Post-War Economic Indicators
(FII, FDI, Crude Oil Prices, and Market Returns – N = 36)
(Source: SPSS Output, Primary Data Analysis)

Interpretation:

Table 4.2 illustrates the Paired Samples Correlations table analyses the relationship between pre-war and post-war values for different economic indicators. Foreign Institutional Investment (FII) has a weak negative correlation (-0.259, $p = 0.127$), suggesting a slight inverse relationship, but it is not statistically significant, meaning no strong conclusion can be drawn. Foreign Direct Investment (FDI) shows a weak positive correlation (0.244, $p = 0.152$), implying some continuity between pre-war and post-war levels, but again, the relationship is not significant. In contrast, crude oil prices exhibit a moderate negative correlation (-0.420, $p = 0.011$), which is statistically significant, indicating that higher pre-war prices are associated with lower post-war prices and vice versa, reflecting potential disruptions in oil market trends. The strongest correlation is in market returns (0.831, $p < 0.001$), showing a highly significant positive relationship, suggesting that pre-war market trends largely continued post-war. Overall, while crude oil prices and market returns show meaningful post-war patterns, FII and FDI exhibit weak and statistically insignificant correlations, indicating more unpredictable post-war shifts in these investments.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	pre war FII - post war FII	812.083	47364.697	7894.116	-15213.825	16837.991	.103	35	.919
Pair 2	pre war FDI - post war FDI	-7928.528	12651.721	2108.620	-12209.254	-3647.801	-3.760	35	<.001
Pair 3	pre war Crude oil prices - post war Crude oil prices	-2182.79763	1340.800841	223.4668069	-2636.45937	-1729.13589	-9.768	35	<.001
Pair 4	pre war market returns - post war market returns	-8796.583	1648.929	274.822	-9354.501	-8238.666	-32.008	35	<.001

Table 4.3: Paired Samples Test of Pre- and Post-War Economic Indicators

(T-test Analysis of the Mean Differences in FII, FDI, Crude Oil Prices, and Market Returns – N = 36)

(Source: SPSS Output, Primary Data Analysis)

Interpretation:

Table 4.3 presents the Paired Samples Test table evaluates whether there are statistically significant differences between pre-war and post-war values for each economic indicator.

The paired sample t-test results reveal varying levels of statistical significance across the four economic indicators analysed in the context of the Russia-Ukraine war. For **Foreign Institutional Investment (FII)**, the mean difference of 812.08 coupled with a high p-value of 0.919 suggests that the change observed is not statistically significant and likely occurred by chance. In contrast, **Foreign Direct Investment (FDI)** experienced a significant decline, with a mean decrease of -7928.53 and a p-value less than 0.001, indicating a substantial and statistically significant reduction in FDI inflows post-war. A similar trend is observed in **crude oil prices**, where the mean decrease of -2182.80 and a very low p-value (< 0.001) point to a significant drop in oil prices after the onset of the conflict. Lastly, **market returns**, measured via the Nifty 50 index, showed the most prominent change with a mean difference of -8796.58 and a t-value of -32.008, both statistically significant ($p < 0.001$). Interestingly, although the difference is negative, it implies a rise in market returns post-war, as the post-war average is higher than the pre-war value. These findings suggest that while FII remained relatively unaffected, the war significantly impacted FDI, crude oil prices, and market performance.

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	pre war FII - post war FII	Cohen's d	47364.697	.017	-.310	.344
		Hedges' correction	47879.843	.017	-.306	.340
Pair 2	pre war FDI - post war FDI	Cohen's d	12651.721	-.627	-.981	-.265
		Hedges' correction	12789.323	-.620	-.970	-.262
Pair 3	pre war Crude oil prices - post war Crude oil prices	Cohen's d	1340.800841	-1.628	-2.124	-1.122
		Hedges' correction	1355.383593	-1.610	-2.101	-1.110
Pair 4	pre war market returns - post war market returns	Cohen's d	1648.929	-5.335	-6.617	-4.045
		Hedges' correction	1666.863	-5.277	-6.546	-4.001

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Table 4.4: Paired Samples Effect Sizes of Pre- and Post-War Economic Indicators

(Effect Size Measures Using Cohen's d and Hedges' Correction – N = 36)

(Source: SPSS Output, Primary Data Analysis)

Interpretation:

Table 4.4 represents The Paired Samples Effect Sizes table provides insight into the magnitude of change between pre-war and post-war values for each economic indicator.

For Foreign Institutional Investment (FII), the effect size is very small (Cohen's d = 0.017), with a confidence interval that includes zero, indicating no practical difference between pre- and post-war levels. In contrast, Foreign Direct Investment (FDI) shows a moderate to large negative effect size (Cohen's d = -0.627), with a confidence interval that does not include zero, confirming a practically significant decline in FDI after the war. Crude oil prices demonstrate a very large negative effect (Cohen's d = -1.628), suggesting a strong and meaningful drop in prices post-war, likely due to disruptions in supply and global uncertainty. The most striking result is for market returns, with an extremely large effect size (Cohen's d = -5.335), indicating a dramatic increase in market performance post-war, despite the negative sign (since the calculation is pre - post).

Based on the comprehensive analysis of pre-war and post-war economic indicators, it is evident that the war had varying impacts on different aspects of the economy. Foreign Institutional Investment (FII) showed a slight decline in mean value post-war; however, the change was neither statistically significant nor practically meaningful, as indicated by a negligible effect size (Cohen's d = 0.017) and a non-significant p-value (0.919). The correlation between pre- and post-war FII was also weak and insignificant, suggesting no consistent pattern. In contrast, Foreign Direct Investment (FDI) displayed a significant increase in mean value after the war, with a moderate to large negative effect size (-0.627), and a statistically significant p-value (< 0.001), indicating a substantial and meaningful shift in long-term investment flows. Crude oil prices experienced a significant post-war increase, supported by a moderate negative correlation (-0.420), a highly significant p-value (< 0.001), and a very large effect size (-1.628), suggesting that the war likely disrupted global supply chains or altered energy market dynamics. Most notably, market returns exhibited the most dramatic change, with a sharp post-war increase, a strong positive correlation (0.831), an extremely significant p-value (< 0.001), and an exceptionally large effect size (-5.335), indicating a robust and meaningful response by financial markets—possibly due to speculation, recovery optimism, or favourable post-war policy measures. Overall, while FII remained relatively stable, FDI, crude oil prices, and market returns underwent statistically and practically significant changes, underscoring the war's broad economic impact.

The analysis reveals several key findings regarding the impact of the war on economic indicators. Firstly, Foreign Institutional Investment (FII) showed a minor decline post-war, but the change was not statistically significant and had a negligible effect size, indicating that institutional investor behavior remained relatively stable. In contrast, Foreign Direct Investment (FDI) experienced a statistically and practically significant increase, with a moderate to large effect size, reflecting stronger long-term investor confidence or strategic shifts post-war. Crude oil prices rose sharply after the war, supported by a significant negative correlation and a very large effect size, pointing to serious disruptions or increased demand in the energy sector. The most substantial change was observed in market returns, which saw a dramatic increase post-war, marked by a strong positive correlation, high statistical significance, and an extremely large effect size, suggesting a powerful market rebound or speculative activity. Overall, while FII remained largely unaffected, FDI, crude oil prices, and market returns were significantly influenced by the war, both statistically and practically.

13. Conclusion and Future Scope: The Russia-Ukraine war has had profound and far-reaching consequences on the global economy, and India has not been immune to its effects. This study set out to examine the impact of the conflict on key economic indicators in India—namely Foreign Institutional Investment (FII), Foreign Direct Investment (FDI), crude oil imports, and market returns (Nifty50). Through a combination of statistical analysis and literature review, it becomes evident that while some sectors experienced stability, others were significantly disrupted. The data analysis showed that **FII** witnessed a slight decline in the post-war period; however, the change was **statistically insignificant and practically negligible**, indicating that short-term foreign investor sentiment remained relatively unaffected. In contrast, **FDI** experienced a **statistically and practically significant increase**, reflecting global investors' confidence in India as a stable and strategic market, even amidst geopolitical tensions.

The study also found that **crude oil prices** saw a sharp rise due to India's increasing reliance on discounted Russian oil, a strategy adopted to ensure short-term energy security and cost efficiency. This shift came with **significant statistical and practical effects**, highlighting India's vulnerability to global supply shocks and its heavy dependence on external energy sources.

Most notably, **market returns (Nifty50)** recorded a **dramatic post-war surge**, backed by strong positive correlation and a very large effect size. This suggests that despite the global turmoil, the Indian financial markets responded with optimism—potentially driven by speculative activity, domestic economic resilience, and policy measures that supported investor confidence.

In conclusion, the Russia-Ukraine war has posed both **challenges and opportunities** for the Indian economy. While the impact on FII was minimal, the shifts in FDI, crude oil pricing, and stock market behaviour underline India's exposure to global events and its growing importance in the international economic landscape. The findings emphasize the need for **diversification of energy imports, development of domestic industries**, and **strategic policymaking** to enhance economic resilience. Moving forward, India must continue to strike a delicate balance between geopolitical neutrality and proactive economic planning to safeguard its long-term growth and stability in an increasingly uncertain world.

(1). Recommendations & Managerial Implications:

Based on the comprehensive findings of the study, several key recommendations and managerial implications emerge that can help strengthen India's economic resilience amid geopolitical disruptions such as the Russia-Ukraine war. To begin with, there is a clear need to diversify energy imports. While discounted Russian crude oil has offered short-term relief, overdependence on a single supplier poses long-term geopolitical and economic risks. India must expand its energy portfolio by strengthening trade ties with other oil-exporting nations and accelerating the shift toward renewable energy. At the same time, it is vital to invest in domestic production capacities, particularly in critical sectors like agriculture, defence, and fertilizers, to reduce reliance on volatile global supply chains. The war has exposed the vulnerability of India's agricultural and food supply chain, underscoring the need for improved storage infrastructure, transportation, and support for smallholder farmers to ensure food security. From a policy perspective, a coordinated approach combining inflation-targeting monetary policies with inclusive fiscal support—such as subsidies and tax relief—is necessary to mitigate the effects of inflation on vulnerable populations. Capital outflows and currency volatility also call for long-term strategies to attract stable foreign investment, supported by mechanisms such as currency swaps, foreign exchange reserves, and the use of financial instruments like hedging and forward contracts. Businesses, in particular, can utilize hedge funds, derivatives, and other risk management tools to protect against fluctuations in commodity prices, interest rates, and currency values. Managers must integrate scenario planning and geopolitical risk assessments into their strategic frameworks while adopting operational safety measures such as diversifying suppliers, localizing production, and maintaining buffer inventories. Energy-intensive industries should consider locking in long-term contracts and adopting efficient technologies to reduce exposure to international energy price shocks. Moreover, companies can benefit by aligning with government initiatives like the Production Linked Incentive (PLI) schemes and Atmanirbhar Bharat programs to strengthen self-reliance and tap into state-supported incentives. In summary, both public and private sectors must adopt a proactive, diversified, and resilient approach to planning, investment, and operations. The strategic use of financial instruments, policy coordination, and innovation-driven supply chain reforms will be key in navigating future uncertainties and securing India's long-term economic stability.

The ongoing geopolitical tensions, such as the Russia-Ukraine conflict, have underscored the urgency for India to build a more resilient and self-reliant economic framework. Beyond diversifying energy imports and boosting domestic production, India must also focus on enhancing its technological and industrial capabilities to reduce dependency on foreign suppliers in critical sectors like semiconductors, pharmaceuticals, and advanced manufacturing. Strengthening research and development (R&D) through public-private partnerships can spur innovation, ensuring that India remains competitive in a rapidly evolving global market. Additionally, the government should prioritize infrastructure development, particularly in logistics and digital connectivity, to facilitate smoother trade and supply chain operations. The private sector, on its part, must embrace sustainability by adopting green technologies and circular economy practices, which can not only mitigate environmental risks but also open new avenues for growth in renewable energy and waste management.

Another crucial aspect is the need for skill development and workforce readiness to meet the demands of an increasingly digital and automated economy. Investing in education and vocational training programs will ensure that India’s labor force is equipped to handle emerging challenges in sectors like artificial intelligence, cybersecurity, and advanced manufacturing. Furthermore, fostering regional trade alliances, particularly with neighboring countries in South Asia and Southeast Asia, can create alternative supply chain networks that are less susceptible to global disruptions. The government’s trade policies should be aligned with long-term strategic goals, ensuring that free trade agreements (FTAs) are negotiated to benefit key domestic industries while maintaining a balance between imports and exports.

Finally, enhancing financial literacy among businesses, especially small and medium enterprises (SMEs), will enable them to better utilize risk management tools such as hedging and derivatives, protecting against market volatility. Strengthening India's financial markets by deepening liquidity and improving regulatory frameworks will also attract more stable foreign investments. By adopting a holistic approach that combines policy foresight, private sector agility, and technological innovation, India can not only withstand future geopolitical shocks but also emerge as a stronger and more self-sufficient global economic player. The collaboration between policymakers, businesses, and financial institutions will be pivotal in ensuring long-term stability and growth.

The Russia-Ukraine war has also highlighted the importance of strategic stockpiling of essential commodities, such as fertilizers, edible oils, and critical minerals, to cushion against sudden supply shocks. India should establish a robust national inventory management system, leveraging data analytics and AI-driven forecasting to optimize stock levels and prevent shortages. Additionally, the government could incentivize private sector participation in building strategic reserves through tax benefits or subsidies, ensuring a more distributed and resilient buffer against global disruptions. Another key area of focus should be strengthening India's export competitiveness in high-value sectors like electronics, chemicals, and precision engineering, reducing reliance on low-margin commodity exports. By fostering innovation clusters and special economic zones (SEZs) with targeted policy support, India can position itself as a global manufacturing hub, attracting foreign direct investment (FDI) while creating high-quality jobs domestically.

Moreover, India must accelerate its digital transformation to enhance supply chain transparency and efficiency. Blockchain technology, for instance, can be deployed to track cross-border trade flows, reducing delays and fraud risks in critical imports. The adoption of smart contracts in trade finance could further streamline transactions, minimizing dependency on traditional banking channels that may be disrupted during geopolitical crises. Finally, greater emphasis should be placed on multilateral diplomacy to secure favorable trade terms and ensure uninterrupted access to key resources. By engaging proactively with global institutions and regional blocs, India can mitigate geopolitical risks while reinforcing its role as a stabilizing force in the global economy.

To further strengthen India's economic resilience, policymakers and businesses should adopt a **Geo-Economic Resilience Index (GERI)**—a data-driven framework that quantifies vulnerability and adaptability to geopolitical shocks. GERI would assess critical factors such as **trade diversification, energy security, supply chain robustness, financial buffers, and technological self-reliance**, assigning a dynamic score that evolves with global risks. By integrating real-time data from global markets, political risk assessments, and domestic economic indicators, GERI would enable proactive adjustments in trade policies, investment strategies, and supply chain configurations. This index could also serve as an early warning system, guiding targeted interventions before crises escalate. Publicly sharing a simplified version of GERI would enhance investor confidence, while a detailed internal model could help the government and corporations align long-term strategies with emerging geopolitical realities. Implementing GERI would position India as a pioneer in **systemic risk intelligence**, ensuring a competitive edge in an unstable world.

(2). Limitations of the Study:

In conducting this study on the impact of the Russia-Ukraine war on the Indian economy, several limitations have been identified that may affect the comprehensiveness and accuracy of the findings. Firstly, the analysis focused on net flows of Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) between 2017 and 2024, without separately examining individual inflows and outflows. This approach may obscure significant trends in gross movements, potentially masking underlying economic dynamics such as market volatility or rapid portfolio adjustments. Additionally, the reliance on secondary data sources and historical trends may not fully capture the dynamic and rapidly evolving nature of global geopolitical conflicts. The chosen timeframe excludes data beyond 2024, limiting the study's ability to assess long-term effects of geopolitical events on investment patterns. Moreover, the study does not account for other critical economic indicators such as employment, inflation at the consumer level, GDP growth fluctuations, or sector-specific analyses, which could provide a more nuanced understanding of the war's impact. Furthermore, the generalization of findings without considering regional or demographic-specific variations within India may overlook important disparities. The correlation-based analysis employed cannot fully establish causation, as other global factors like pandemic aftershocks, central bank policies, or internal reforms may have influenced the outcomes. The scope of primary data collection was limited, and the study did not incorporate qualitative insights from policymakers, investors, or business stakeholders, which could have enriched the contextual understanding. Lastly, the ever-evolving nature of global markets and diplomatic relations means that conclusions drawn are time-sensitive and may require updates as geopolitical situations unfold. These limitations suggest that future research should incorporate detailed examinations of both FDI and FII inflows and outflows over extended periods, consider additional economic indicators, and include qualitative insights to provide a more comprehensive understanding of investment dynamics in response to geopolitical events.

To maximize the effectiveness of GERI, India could integrate AI-powered predictive analytics to simulate potential geopolitical disruptions and their cascading economic impacts. By leveraging machine learning models trained on historical crises, trade patterns, and global conflict data, GERI could forecast vulnerabilities in real time and recommend adaptive measures—such as alternative supply routes or strategic stockpile adjustments. Additionally, a GERI Dashboard could be developed for businesses and policymakers, offering sector-specific risk assessments and resilience benchmarks. To ensure broad-based adoption, the government could incentivize private firms to align their contingency plans with GERI metrics through tax breaks or preferential procurement policies. A GERI Task Force, comprising experts from finance, defense, and logistics, could periodically review and refine the index, ensuring it remains responsive to evolving threats. This forward-looking approach would not only enhance India's crisis preparedness but also foster a culture of proactive risk governance across industries.

14. References

1. R. Sharma and A. Mehta, "Economic impact of geopolitical conflicts on emerging markets," Int. J. Econ. Policy, vol. 15, pp. 221-239, June 2022.
2. P. Verma, "The Russia-Ukraine war: Global supply chain disruptions," J. Global Trade, vol. 8, pp. 112-130, April 2023.
3. S. Mukherjee, "Crude oil price volatility and its effects on Indian markets," Energy Econ. Rev., vol. 11, pp. 78-94, May 2021.
4. A. Banerjee and T. Singh, "Foreign institutional investments during geopolitical crises," Emerging Markets J., vol. 9, pp. 310-328, August 2022.
5. N. Kapoor, "Sanctions on Russia and their impact on global commodity markets," Econ. Policy J., vol. 12, pp. 199-214, September 2022.
6. M. Roy, "The role of FDI in economic resilience during global conflicts," J. Int. Finance, vol. 14, pp. 56-72, July 2021.
7. S. Bhattacharya, "Inflationary trends in India post-Russia-Ukraine conflict," Indian Econ. Rev., vol. 10, pp. 341-358, October 2023.
8. T. Choudhury, "Impact of geopolitical instability on stock market performance," J. Financial Analysis, vol. 17, pp. 129-144, March 2023.
9. R. Jain, "India's energy security amidst Russia-Ukraine war," Energy Policy Rev., vol. 19, pp. 215-230, December 2022.
10. V. Srivastava, "Trade disruptions due to war: A case of India," J. Trade Policy, vol. 6, pp. 101-118, January 2023.
11. M. Kitamura and R. Noyori in "Ruthenium in Organic Synthesis" (Ed.: S.-I. Murahashi), Wiley-VCH, Weinheim, 2004, pp. 3–52.
12. D. Patil, "The long-term effects of war on developing economies," Dev. Econ. J., vol. 5, pp. 88-102, July 2022.
13. G. Sinha, "How geopolitical risks affect currency exchange rates," Forex Econ. Stud., vol. 7, pp. 45-62, June 2023.
14. K. Das, "Impact of Western sanctions on Indian imports and exports," J. Trade & Finance, vol. 13, pp. 277-290, February 2023.
15. P. Mishra, "Economic uncertainty and investor sentiment in India," Behavioral Finance J., vol. 10, pp. 115-130, August 2022.
16. S. Gupta, "India's food security and global wheat supply chains," J. Agri. Econ., vol. 9, pp. 67-84, May 2023.
17. B. Bose, "A study on economic sanctions and their effectiveness," J. Int. Relations, vol. 5, pp. 231-246, November 2022.
18. A. Reddy, "The effects of war-induced financial crises on Indian banks," Banking & Finance Rev., vol. 8, pp. 145-160, October 2022.
19. CDSL India, "Central Depository Services (India) Limited," [Online]. Available: https://www.cdslindia.com/. [Accessed: 04-Feb.-2025].
20. DPIIT, "Department for Promotion of Industry and Internal Trade," [Online]. Available: https://dpiit.gov.in/. [Accessed: 04-Feb.-2025].
21. PPAC, "Petroleum Planning & Analysis Cell," [Online]. Available: https://ppac.gov.in/. [Accessed: 04-Feb.-2025]
22. OGD, "Open Government Data Platform India," [Online]. Available: https://data.gov.in/. [Accessed: 04-Feb.-2025].
23. NSE, "National Stock Exchange of India Ltd," [Online]. Available: https://www.nseindia.com/. [Accessed: 04-Feb.-2025].
24. https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023; Dated-10/02/2023.

****