A Comparative Review of India's Foreign Trade Pre and Post COVID-19

Meghadip Nandy

Student, NSHM College of Management & Technology, Kolkata

Dr. Chandrima Ganguly

Assistant professor

NSHM College of Management & Technology, Kolkata

Introduction

Foreign trade plays a vital role in promoting economic growth, providing employment opportunities, making international relations and allowing countries to access resources and products that they cannot produce domestically and those products also which has a lower production capacity in their nation. Foreign trade is essential for the domestic as well as global economy as it allows countries to specialize in producing goods and services in which they have a comparative advantage (i.e., they can produce more efficiently or at a lower cost) and to access these products that may not be available domestically not only it can be obtained at a cheaper cost from other countries.

Foreign trade, or international trade, is influenced by a multitude of factors that shape the patterns, volume, and nature of trade between countries. These factors can be broadly categorized into economic, political, technological, social, environmental and legal aspects. Economic Factors include a) Market Size and Demand which influence trade. Larger markets attract more foreign investment and trade b) Resource Endowment and technological capabilities which impact a country's ability to produce goods and services for export c) Costs of Production related to labour costs, capital availability, technology, and infrastructure can affect a country's competitiveness in international markets d) Exchange Rates impact the competitiveness of exports and imports. A weaker currency can boost exports but increase import costs e) Government regulations such as Trade Agreements or customs unions, influence trade flows by reducing tariffs and other trade barriers, tariffs (import taxes) and quotas (quantity restrictions) regulate imports and protect domestic industries and trade f) Promotion policies to promote exports, such as export subsidies, export financing, and trade missions. Technological Factors impact trade: a) Advances in transportation (ships, planes, trucks) and communication (internet, telecommunication) reduce trade costs and facilitate global supply chains b) E-commerce and digital technologies enable cross-border trade in services (e.g., software, consulting) and digital goods (e.g., software, entertainment). Social and Cultural Factors include differences in consumer preferences, tastes, and cultural factors which influence demand for specific goods and services. Migration and movement of labour affect production capabilities and labour markets, impacting trade patterns. Among political and legal factors Political stability and government policies impact investor confidence and trade relations. Also Trade laws, intellectual property rights protection, and regulatory frameworks affect trade activities and foreign investment.

Foreign trade, or international trade, plays a crucial role in shaping the economies of nations and driving global prosperity. The importance of foreign trade stems from several key benefits and impacts on economic development, employment, technological advancement, and cultural exchange. Foreign trade contributes to economic growth by expanding markets and promoting specialization, efficiency, and innovation. It allows countries to focus on producing goods and services in which they have a comparative advantage, leading to increased productivity and output. Trade facilitates access to a wider variety of goods and services, fostering consumer choice, competition, and lower prices. This benefits consumers and businesses alike. Trade can generate employment by creating demand for goods and services, both domestically and through export-oriented industries. As exports grow, industries expand, leading to more job opportunities in production, distribution, and related services. Exporting goods and services generates foreign exchange earnings for countries, which can be used to finance imports of essential goods, technology, and capital equipment. Foreign exchange reserves contribute to economic stability and provide a buffer against external shocks. Trade allows countries to specialize in the production of goods and services that they can produce more efficiently, based on their resource endowment and technology. This leads to optimal allocation of resources and maximizes overall economic welfare.

Foreign trade facilitates the transfer of technology, knowledge, and skills across borders. Exposure to international markets encourages innovation and adoption of best practices, leading to technological advancements and productivity gains. Engaging in foreign trade reduces dependence on domestic markets alone. Diversifying export markets and sources of imports can mitigate economic risks associated with domestic economic fluctuations or market disruptions. Trade fosters cultural exchange and understanding between nations, promoting international cooperation and diplomacy. Economic interdependence created by trade often leads to improved political relations and peaceful resolution of conflicts and promotes global integration of economies. Increased trade can lead to inclusive growth, benefiting a broader segment of society.

Impact of COVID on foreign trade worldwide:

The COVID-19 pandemic can affect both imports and exports of goods in any nation or country. On the demand side in consumer's perception the stay-at-home order decreasing the shopping opportunities thus it leads to decreasing demand. The decrease in sales due to workplace closures may have also reduced people's earnings and incomes, further decreasing the demand of commodities. These decreases result in a decline in the consumption of goods and imports. By contrast, COVID-19 increases the demand for foods, medical products, and personal protective equipment, such as masks, sanitary products, FMCG products or any personal need products. It may also increase the demand for products related to teleworking and stay-at-home activities e.g., laptop, computers or tablets etc. On the export side, the closure of workplaces halts business operations, leading to the suspension of production activities. Furthermore, factory productivity may decline because of the introduction of infection control measures (e.g., social distancing) in factories. These factors result in the shrinkage of production output, thus reducing exports in every nation World-wide.

The COVID-19 pandemic has change the FDI flows of different countries world-wide. The COVID-19 damages in host countries will decrease their demand size and raise the fixed cost of investments e.g., various search costs of location and workers. The severe damage in the host country may lower the valuation of acquired firms, enabling investors to acquire local firms with lower prices, which is known as "fire-sale FDI." The severity of the COVID-19 pandemic in the home country could have a negative impact through reduced investment capital. For example, firms may switch their export base from home to abroad to continue production activities. The mobility restriction induced by the COVID-19 pandemic reduces the handling capacity of freights due to the shortages of truck drivers and port labours and resulting in the rise of both domestic and international transport costs. Thus, firms may switch from exporting from home to producing abroad and selling domestically.

With this pretext, the next section tries to do a literature review of various facades of foreign trade and how it has been impacted by COVID 19.

Systematic Literature Review

Author	Year	Basic Findings
Revathy, B & Kailash, K	2012	"Trade is not an end in itself, but a means to economic growth and national development. The primary purpose is not the mere earning of foreign exchange but the stimulation of greater economic activity". Globalization is accepted as the New Mantra for economic success of economies over the world where India and China have proved this to some extent. Globalization describes the ongoing global trend toward the free flow of trade and investment across borders and the resulting integration of the international economy. That is why international trade agreements make exceptions by allowing longer time to developing economies in terms of reduction in tariff and non-tariff barriers.

Botre, P. R	2018	The researcher has taken the data from 2005-06 to 2015-16 of foreign trade, and it classified in two parts as export and import of oil and non-oil with trade balance. The study concludes that liberalization, privatisation and globalization changes in the business environment for improving the foreign trade relation with other countries is very important.
Gopalakrishnan, A & Mahalakshmi, A	2018	The study shows that since the adoption of New Economic policy in India the composition of India's exports has grown up significantly. The export of petroleum has shown a considerable increasing trend. The major portion of Indian exports is in manufactured goods. The composition of India's imports has also grown up significantly. The share of imports of petroleum and crude products and other non-bulk items have increased significantly while the imports of food grains and export-related items have declined. It is also found that though import has a negative influence on economic growth, the volume of trade reflected by economic openness has a positive impact on the economic growth of India and its magnitude is increasing continuously. The study reveals that though the total exports and imports both have increased the growth rate of imports is more than the growth rate of exports. The foreign trade of a country consists of the inward and outward movement of goods and services, which results in outflow and inflow of foreign exchange from one country to another country. This implies that no country is self-sufficient in the sense that no country can produce all the goods that it needs. Hence, the need to trade with each other arises.
Gupta, S	2019	This paper is an attempt to analyse the major changes in volume, composition and direction of Indian Foreign Trade. India exports vast number of products and also imports an equal number of other products. Although India has steadily opened up its economy, its tariffs continue to be high when compared with other countries, and its investment norms are still restrictive. Foreign trade is crucial for the Indian economy due to the need to import diverse products. India's export growth rate needs to be around 26.5% for five years to achieve a 5% share in world exports, necessitating major strategies and trade policy reforms. The direction of trade, which signifies trade relationships with other countries, is essential for understanding India's export-import dynamics. Strategies like demand-based export basket diversification are crucial for aligning India's exports with global import demands, enhancing trade competitiveness
Saini, S & Aggarwal, K	2020	From the analysis, it is concluded that India's merchandise exports and imports both have increasing trend over the period. The growth rate of imports is higher than exports and because of this, India is facing the un-favourable balance of trade with ASEAN countries. In order to improve the long run trade relationship India should enlarge the export of those items in which ASEAN is dependent upon the developed countries of the world. Similarly, ASEAN should also increase the export of those items in which India is dependent upon the developed countries. The overall analysis finds that although both India and ASEAN nations compete with each other in the sale of their exportable. In fact, trade relations between India and ASEAN have always been governed by political and geo strategic interest.
Okenna, N P	2020	This paper concludes that international trade has the potential of driving the needed long-term development of the economies of developing nations. Also,

		developing countries should adopt a flexible exchange rate that fosters international trade. Expansionary monetary and fiscal policies should equally be adopted by these countries as well as encouraging small and medium scale enterprises in their regions. Although international trade between nations may create room for economic growth in the country, however, it is not a rule of thumb that its overall outcome and effect are seen equally on their trading partners. This is because of the comparative advantage and absolute advantage gains countries may benefit in addition to their natural dispositions and resources.
Handoyo, R D	2020	The COVID-19 pandemic has not only triggered an unprecedented global health crisis but also a global economic, trade and investment crisis. Global Trade in merchandise fall from 12% to 32% in 2020. FDI flows are projected to fall further by 30% to 40% in 2020-202. The decline in trade is a reflection, instead of a cause, of the economic contraction that occurred, caused by rising trade costs - from disruptions in transportation, logistics and supply chains, as well as trade restrictions. At the same time, the COVID-19 pandemic is driving an overall digital transition in society and industry. Trade and investment fluctuations depend on how quickly the pandemic can be controlled. While a crisis can cost unexpectedly, the government can limit spending costs with a variety of policies. The positive impact of the current situation is an opportunity for countries to consider how they can be better prepared in the future.
Tiwari, N K	2021	The study highlights India's foreign trade, emphasizing the push given to exports. It indicates that while there has been an increase in exports, the rate of increase in imports is higher, leading to a trade deficit. The analysis shows a significant rise in both exports and imports post the new economic reforms, suggesting an overall improvement in trade performance. The findings can inform policymakers about the impact of economic reforms on trade dynamics and the need to address the growing trade deficit through strategic measures. It compares the trade performance of India in terms of exports, imports, and total trade value during the pre-reform and post-reform periods, using time-series data from 1970-71 to 2012-13
Mishra, M	2021	Foreign trade is a vital aspect of any economy, and India has made significant strides in its approach to foreign trade over the years. the Indian Government adopted a more liberalized foreign trade policy, gradually removing restrictions to improve the position of Indian foreign trade. Today, India exports approximately 7500 commodities to nearly 190 countries, generating significant revenue. In the 2019-20 fiscal year, Indian exports reached a value of US $ 313138.5 million, while imports totalled US $ 4,73,995.2 million.
Vidya, C. T.	2022	The study based on Chinese economy has been found that during the first wave of COVID-19 in 2020, trade growth was marred by regional disparities. Although the COVID-19 pandemic originated in China in December 2019 on account of which Chinese exports fell in the first quarter of 2020, yet they regained their loss and stabilized by the second quarter, rebounding strongly and completely in the third quarter. The network parameters show a considerable reduction in trade density as well as trade integration among the countries within a year. China's trade pattern changed in favour of intraregional trade after the pandemic spread in 2020. China's RTPs toward regional partners shifted toward East and Southeast Asia, becoming negative for its other trade partners. This could be the reason for

		China's preeminence in world trade, even when the world is only slowly recovering from the restrictions of the COVID-19 pandemic.
Augusti,P Sokolovski,V Subrahmanyam, M.G Tomio ,D	2022	In this study author explain the COVID-19 pandemic provides a unique setting in which to evaluate the importance of a country's fiscal capacity in explaining the relation between economic growth shocks and sovereign default risk. For a sample of 30 developed countries, they find a positive and significant sensitivity of sovereign default risk to the intensity of the virus's spread Supporting the fiscal channel, we confirm the results for Eurozone countries and U.S. states, for which monetary policy can be held constant. Our analysis suggests that financial markets penalize sovereigns with low fiscal space, impairing their resilience to external shocks.
Sinaga, A	2022	The findings of this study states that in the face of massive social restrictions (PSBB) or better known as restrictions on community activities (PPKM) carried out by government as aftereffect of Covid 19, partially inflation, interest rates and the trade balance have a significant effect on the economic growth variable and the moderator variable for increasing the balance of payments, while simultaneously the inflation variables, foreign exchange rates, interest rates and the trade balance has a significant effect on the variable of economic growth through the variable of increasing the balance of payments. Through the results of this research paper, it has been stated that the inflation variable, interest rates and trade balance affect economic growth through an increase in the balance of payments, where these three macroeconomic variables are things that are able to boost economic growth.
Wysokińska, Z	2023	The researcher in his study says that Global trade in goods exceeded pre-COVID–19 levels by 15%, but for the services sector, the results were weaker as the value of this trade had not yet reached pre-pandemic levels. China, the EU, and the United States have been among the world's most prominent players in international trade since 2004, when China overtook Japan. The European Union, the United States, and China accounted for 43% of world trade in goods in 2020. Satisfactory results of the increase in trade intensity were recorded in the era of a pandemic, especially in e-commerce in both its forms, i.e., B2B and B2C. It was related to the intensive development of the digital economy at the European level and especially at the global level. Therefore, the dynamic growth of e-commerce in recent years has helped reduce the negative effects of the COVID–19 pandemics, especially at the global level.
Tudorache, A and Nicolescu, L	2023	The impact of the COVID-19 crisis on international trade at the country level by investigating two European countries, Romania and Poland. The COVID-19 crisis disrupted the economic life of the entire world and caused various disturbances at different levels in economies and societies. Exports and imports in Poland were more affected by COVID-19 than exports and imports in Romania. COVID-19 also had a higher impact on the import than the export flows in both countries during the period considered. The negative assumed relationships between COVID-19 burden and international trade flows were not verified in these specific country cases.
Hayakawa and Mukunoki	2021	A study of foreign trade effects of COVID-19 investigated the trade effects of the first shock i.e., January to August of 2020. The study found negative effects on non-essential or durable products or products in labour-intensive industries but

		positive effects on industries providing medical products. It has been found that the COVID-19 pandemic decreased exports of medical products in the early period of the pandemic, but the decrease was smaller for countries with economic and/or political ties to neighbouring countries. The negative effects, especially on exports, are mitigated with an increase in vaccination doses. The negative impacts of COVID-19 on finished machinery products become smaller as exporters diversify the sources of the imported inputs. the development of e-commerce (EC) in importing countries contributes to mitigating the negative effects of the COVID-19 pandemic.
Ando and Hayakawa	2022	COVID-19 pandemic had a significantly negative impact on services trade. The extent of the impact varied among disaggregated services sectors, reflecting the nature of services and the Travel services were the most affected, followed by transport and construction services.
Hayakawa, Lee, and Park	2022	the effects of the COVID-19 pandemic on FDI was studies using quarterly data of bilateral FDI flows from 173 countries to 192 countries from the first quarter of 2019 to the second quarter of 2021. In the manufacturing sector, the COVID-19 pandemic in host countries had significant negative impacts on both greenfield FDI and cross-border M&A, whereas in home countries, they do not experience any significant impacts on both types of FDI. In the services sector, the COVID-19 pandemic in both host and home countries has negative impacts on greenfield FDI. whereas the impact of the COVID-19 pandemic on cross-border M&A appears to be mostly insignificant.

The above literature survey highlights the importance for analysis of India's foreign trade scenario post COVID-19. In the following segments the objective , research methodology and findings of the study are analysed .

Objective of the Study:

This study tries to analyse the extent to which COVID-19 pandemic disrupted global trade of India impacting India's export-oriented industries The study of this paper focuses on India's foreign trade scenario with respect to trade balance, foreign investment, exchange rate and total debt. the study analyses the changes in total external debt, total foreign investment, foreign exchange reserves and the foreign exchange rate in pre and post covid scenario from 2017-18 to 2022-23. More specifically this paper tries to

1. Make a Comparative study of the trade scenario of India pre and post covid 19. To do so the variables considered are export and import volume, trade balance, foreign investment, exchange rate and total debt and their trends ad growth patterns are analysed
2. Analyse the nature and trends of the variables considered in terms of their central tendency, dispersion, skewness and kurtosis.
3. Evaluate the degree of association among the various variables considered to understand the trade scenario in India.
4. Relation between the various factors affecting the foreign trade of a country

Research Methodology

This research paper is based on secondary source of data and it is an exploratory study. The present study examines the India's foreign trade for a period of six years from 2017-18 to 2022-23. This time period has been considered keeping in view the influence of Covid-19. The secondary data has been collected from sources like RBI-different issues of the Handbook of Indian Statistics, the Economic Survey, and the website of Ministry of Commerce.

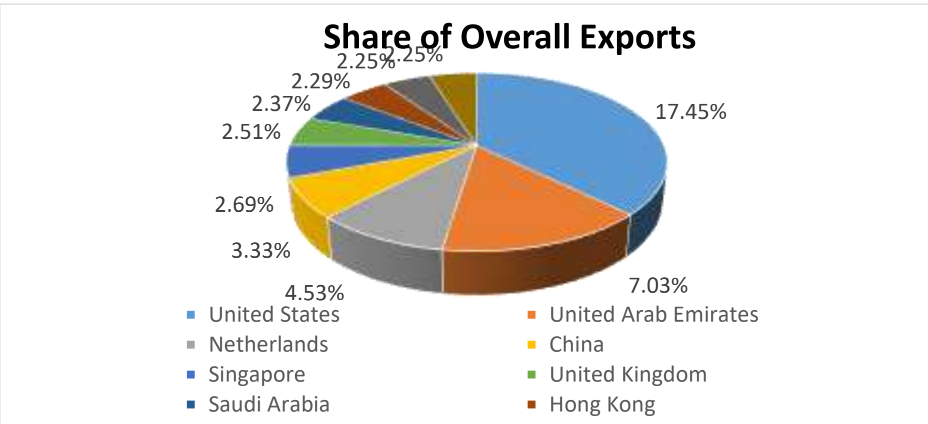
In this study, a qualitative analysis is done using tabular and graphical representation tools like pie chart, trend analysis and bar diagrams are used for the analysis of data. EXCEL has been used to study the descriptive statistics of the variables and for all data representations. Tabular representation is used to explain the nature and trends in the trading partners. Bar diagram and Pie diagram are used to analyse the comparative country wise share in export and import with India. Bar diagram is used for the representation of the growth rate in foreign exchange rate i.e. to show whether the dollar price is increasing or not in respect to Indian currency. I have also taken trade balance with the help of exports and imports data and I have shown these variables in trend analysis chart to study how much export and import has happened for the years and whether there has been trade deficit or trade surplus. Stacked line chart is used for showing the changes in foreign exchange reserves and foreign investment for the time period of six years from 2017-18 to 2022-23. Another variable we have taken is external debt which is again shown by the bar diagram.

The descriptive statistics has been used to analyse the various characteristics of the data set like mean, median, dispersion, kurtosis, skewness and the range. The descriptive statistics has been calculated using EXCEL software. The empirical study involves estimation of the degree of association among the variables to do so correlation coefficients has been calculated and the correlation matrix has been determined among the variables which has been done using excel. The variables whose correlation has been studied are total external debt, foreign exchange reserves, foreign investment, foreign exchange rate and trade balance.

Findings and Analysis

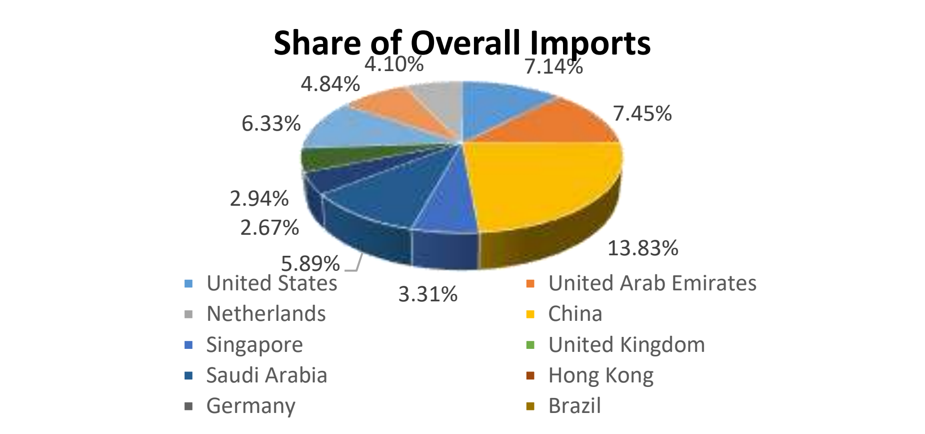
The figures below (figure 1 and 2) shows the top trading partners of India and their shares in terms of value of exports and imports of India post COVID 19 in the financial year 2022-23. From the figure we can see that the top 5 export partners of India are United States, United Arab Emirates, Netherlands, China and Singapore. United States is a strong export and import partner of India having the highest exports of goods 71.39 US $billion (annexure 1) which implies that 17.45% of goods have been exported to United States and 7.14% of goods were imported from United States signifying a positive effect on trade balance in trading relation with United States. 6 countries have less than 3% of overall export value which includes Singapore, United Kingdom, Saudi Arabia, Hong Kong, Germany and Brazil. Germany and Brazil has the lowest share of exports (2.25%). Among the major import partners of India China is the largest import partner of India as 90.72 US $billion worth goods has been imported from China to India(annexure1). This is 13.83% of overall share of imports which suggests a strong trade relationship between India and China. 5 countries have less than 5% of share in overall imports and they are Singapore, Australia, South Korea, Iraq and Indonesia and among them 2 countries have less than 2% of share in overall imports. The lowest import partner of India is Australia as only 17.5 US $billion have been imported from Australia which accounts for only 2.67% of total import of India during 2022-23. Only 5 countries from the are both export and import partners of India that includes United States, United Arab Emirates, China, Singapore and Saudi Arabia. (Annexure 1).

Figure 1: Share of Major Import of India in 2023



Source: Author's Calculation

Figure 2: Share of Major Export of India in 2023



Source: Author's Calculation

Table 2 represents the export and import values and the respective percentage change in exports and imports of various commodities post COVID pandemic from April 2023 to February 2024, with comparisons to the previous year data April 2022 to February 2023. We have taken these two financial years as these two years will show the performance of different sectors within the economy in terms of export and import of commodities after COVID pandemics. The total export value for the period April 2023 to February 2024 decreased by 3.45% compared to the same period in the previous financial year and this decline indicates a general downturn in export earnings during this timeframe which leads to adoption of various measures for increasing the export of different commodities which are nor performing well.

Agricultural Commodities like Tea and rice experienced slight declines in export while that of coffee, tobacco and spices, food Products which includes Fruits and vegetables, meat, dairy & poultry products, and cereal preparations recorded a very stable growth rates indicating strong demand for these products in international markets. Iron ore exports surged dramatically by 155.38%, but mica, coal & other ores experienced a decline of -10.28%. Engineering goods and electronic goods demonstrated moderate growth 1.23% and 23.72% respectively and while gems & jewellery, leather products, and textiles showed declines in export values. Textile-related exports including RMG, cotton yarn, and man-made textiles decreased. Chemicals and Pharmaceuticals sector includes Drugs & pharmaceuticals and organic & inorganic chemicals saw mixed performance with pharmaceuticals showing growth 9.34% but chemicals declining -7.40%. The decline in petroleum product exports by -12.04% could be attributed to various factors such as global oil prices and demand fluctuations. Top 3 Commodities whose export has increased post COVID 19 are Iron Ore (155.38%), Electronic Goods and Oil Meals and Oil Seeds (17.12% and 12.05% respectively). Top 3 Commodities whose export has declined post Covid 19 are Other Cereals (-55.92%), Jute Mfg. including Floor Covering (-22.58%) and Gems & Jewellery (-14.55%). Thus from this table highlights the importance of diversifying export markets and product ranges to mitigate risks associated with fluctuations in specific sectors or markets. Governments and businesses can leverage this data to formulate targeted policies and strategies to support sectors experiencing declines and capitalize on those showing growth potential. Based on these insights, stakeholders can make informed decisions regarding investments, trade promotions, and policy interventions to enhance export competitiveness and overall economic performance.

The overall import decreased by -5.32% from 655048.10 million USD to 620192.53 million USD from APR'22-FEB'23 to APR'23-FEB'24 indicating a general downward trend in total import values post Covid. The imports of Cotton Raw & Waste, Vegetable Oil and Petroleum, Crude & products significantly declined. Pulses, Electronic goods witnessed a significant increase. The observed changes in import values can be influenced by macroeconomic factors also such as exchange rates, international trade policies, geopolitical developments, and global market conditions. Thus, from the data below it is found Top 3 Commodities whose Import has increased post COVID 19: Pulses (80.41%), Dyeing/tanning/colouring materials (29.81%) and Medicinal & Pharmaceutical products (2.48%). Top 3 Commodities whose Import has fallen post COVID 19 are Cotton Raw & Waste (-60.26%), Vegetable Oil (-28.95%) and Fertilisers, Crude & manufactured (-39.38%).

Table 2: Major Exports and Imports (Commodities) of India

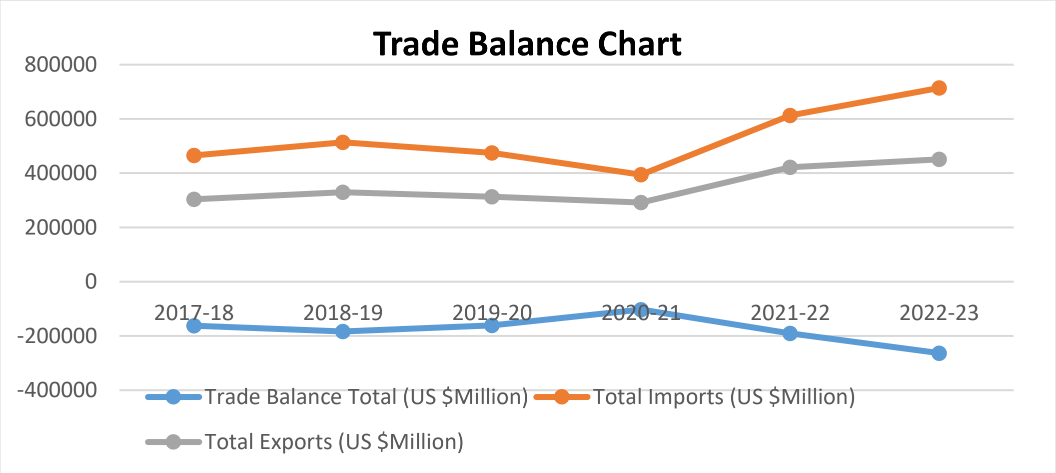
Sl No.	Commodities	Values in Million US (Exports)		% Change	Values in Million USD (Imports)		% Change
		APR'22-FEB'23	APR'23-FEB'24	APR'22-FEB'23	APR'23-FEB'24	APR'23-FEB'24	APR'23-FEB'24
1	Tea	759.94	752.91	-0.93	1383.69	549.83	-60.26
2	Coffee	1010.98	1096.60	8.47	19430.88	13806.56	-28.95
3	Rice	10016.30	9321.59	-6.94	1759.39	3174.14	80.41
4	Other cereals	1110.70	489.58	-55.92	2443.92	2678.68	9.61
5	Tobacco	1124.00	1328.17	18.16	1947.44	1685.32	-13.46
6	Spices	3404.21	3676.30	7.99	2434.30	2116.69	-13.05
7	Cashew	323.52	310.26	-4.10	16394.61	9939.02	-39.38
8	Oil Meals	1341.92	1571.66	17.12	330.36	194.41	-41.15
9	Oil seeds	1162.86	1302.95	12.05	8429.15	8712.31	3.36
10	Fruits & Vegetables	2791.19	3220.40	15.38	46282.04	35661.51	-22.95
11	Cereal preparations & misc. processed items	2367.70	2581.53	9.03	191396.24	162619.40	-15.04
12	Marine Products	7403.23	6846.80	-7.52	6655.93	5894.29	-11.44
13	Meat,dairypoultry product	3647.80	4111.92	12.72	955.67	858.62	-10.16
14	Iron Ore	1426.87	3643.92	155.38	30801.59	24584.31	-20.18
15	Mica, Coal & Other Ores, Minerals/processed minerals	4672.18	4191.84	-10.28	3561.79	4623.54	29.81
16	Leather/leather products	4407.93	3939.57	-10.63	21314.66	20456.20	-4.03
17	Ceramic products & glassware	3365.59	3900.69	15.90	11112.82	11880.50	6.91
18	Gems & Jewellery	35212.02	30087.70	-14.55	474.57	395.73	-16.61
19	Drugs Pharmaceuticals	22906.75	25046.43	9.34	27680.59	21346.35	-22.88
20	Organic & Inorganic Chemicals	27620.07	25576.50	-7.40	20674.65	22111.11	6.95
21	Engineering Goods	96846.36	98037.37	1.23	18132.91	19568.61	7.92
22	Electronic Goods	20694.04	25601.88	23.72	4044.17	4423.67	9.38
23	Cotton Yarn/Fabs. / Made-ups,Handloom Products	9924.13	10588.91	6.70	41295.09	44729.71	8.32
24	Man-made Yarn/ Fabs. /Made-ups etc.	4472.54	4239.80	-5.20	28250.92	24188.63	-14.38
25	RMG of all Textiles	14742.71	13059.35	-11.42	1496.01	1036.81	-30.69
26	Jute Mfg. including Floor Covering	400.96	310.41	-22.58	6229.85	7012.18	12.56

27	Carpet	1255.12	1266.14	0.88	70070.33	82117.56	17.19
28	Handicrafts excl. handmade carpet	1566.21	1522.91	-2.76	7403.62	7587.18	2.48
29	Petroleum Products	89121.41	78389.52	-12.04	31715.42	44009.85	38.76
30	Plastic & Linoleum	7652.29	7297.91	-4.63	5224.11	4621.74	-11.53
	GRAND TOTAL	**409112.18**	**394990.82**	**-3.45**	**655048.10**	**620192.53**	**-5.32**

Source: https://commerce.gov.in/

Figure 3 gives a graphical illustration of Trade Balance (in US $Million), Total Imports (in US $Million), and Total Exports (in US $Million) from 2017-18 to 2022-23, The Trade Balance, which is the difference between total exports and total imports, indicates the net flow of goods and services in and out from the country in the financial year. The trend analysis chart shows that the overall trade balance is negative indicating a trade deficit in all the years from 2017-18 to 2022-23. The volume of the trade deficit varied over the years, with the highest trade deficit recorded in 2022-23 at -263,084 million US dollars. Overall imports and exports both have been increased over the given time frame indicating a growing trade activity. Notably, the gap between total imports and exports increased rapidly in the recent years (2021-22 and 2022-23), reflecting increased import volumes compared to export volumes in both the financial years. The widening trade deficit could be influenced by several factors such as increased reliance on imported goods, including raw materials, intermediate goods, and finished products. Continuous trade deficits can have economic implications, including pressure on foreign exchange reserves, potential currency depreciation and dependence on external financing such as IMF or World Bank. Governments may implement policies and strategies to address trade deficit such as promoting export-oriented sectors or diversifying export markets, investing in infrastructure ex- Roadways or imposing import restrictions. Analysing the underlying factors shaping trade dynamics and adopting targeted policy measures can contribute to enhancing trade balance and strengthening the overall economic resilience of the country.

Figure 3: Trend Analysis of Annual Export, Import and Trade Balance from 2017-2023



Source: Author's Calculation

A growing economy may require more capital, leading to increased debt. Higher debt levels mean increased debt servicing costs (interest payments), which could strain fiscal budgets and divert resources from other critical areas like infrastructure and social programs. Rising debt levels could affect credit ratings and investor confidence, potentially impacting borrowing costs and access to international capital markets. Table 3 shows a comprehensive analysis of the total external debt of India and its growth rate from 2017-18 to 2022-23. This data chart is crucial for understanding the financial health and borrowing trends of the country. There is a noticeable upward trend in the total external debt across these years, with the debt increasing consistently from 471,012 US $ million in 2017-18 to 619,076 US $ million in 2022-23. The year-on-year growth rates which can reveal the rate at which the debt is increasing annually is computed using the formula:

$$\text{Growth Rate} = \frac{(\text{Debt in Current Year} - \text{Debt in Previous Year})}{\text{Debt in Previous Year}} \times 100\%$$

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 09 Issue: 04 | April - 2025 SJIF Rating: 8.586 ISSN: 2582-3930

For example: Growth Rate (2018-19)

$$= \frac{(529,278-471,012)}{471,012} \times 100\%$$

=12.38%

The growth rates indicate fluctuations but generally show a steady increase in recent years, with a notable increase from 2021-22 to 2022-23. This represents a significant insight into the pace of debt accumulation. Consistent growth rates may suggest planned borrowing to fund investments or development projects.

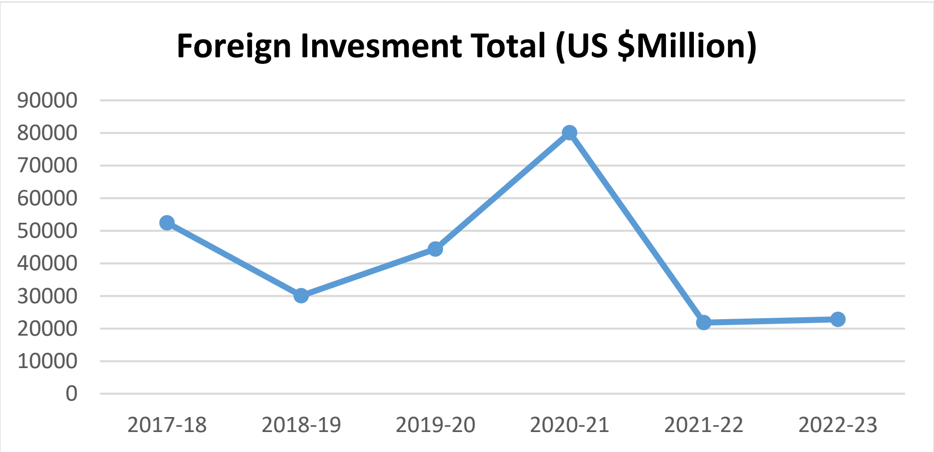
Table 3: Total Annual External Debt and its Growth Rate

Years	Total External Debt (US $Million)	Growth Rate
2017-18	471012	-2.64%
2018-19	529278	12.40%
2019-20	543135	2.60%
2020-21	558315	2.80%
2021-22	573410	2.70%
2022-23	619076	7.90%

Source: Author's calculation

Figure 4 shows fluctuations in annual foreign investment from 2017-18 to 2022-23. Foreign Investment was relatively high in 2017 at 52,401 million US dollars but decreased significantly in 2018-19 to 30,094 million US dollars. There was a rebound in 2019-20 with foreign investment rising to 44,417 million US dollars and reaching 80,092 million US dollars in 2020-21. However, post COVID in 2021-22 and 2022-23, Foreign Investment dropped to lower levels, with amounts around 21,000-23,000 million US dollars. The decline in 2021-22 and 2022-23 might be due to factors such as changes in global economic dynamics, shifts in investment priorities or due to the post covid wave which led to the decrease of Foreign Investment. Changes in government policies, trade agreements, or regulations can impact foreign investment levels. Fluctuations in foreign investment totals over the years could reflect shifts in policies related to foreign direct investment (FDI) or capital inflows. Certain sectors may have experienced fluctuations in investment due to changes in market conditions, technological advancements, or regulatory environments.

Figure 4: Trend Analysis of Annual Foreign Investment from 2017-2023



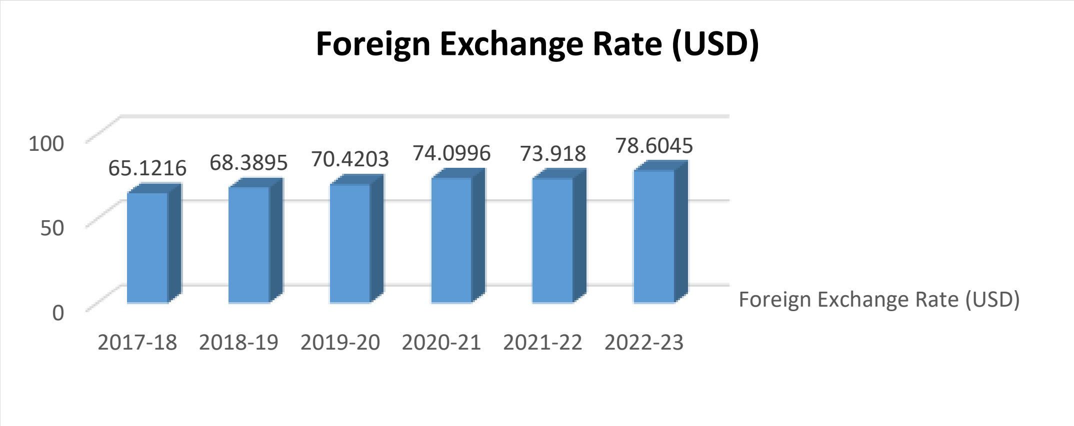
Source: Author's Calculation

Policymakers often monitor and intervene in foreign exchange markets to manage exchange rate stability. Comparing these exchange rate movements with economic indicators (e.g., GDP growth, inflation rates) can provide insights into the broader economic context. The diagram below represents foreign exchange rates (USD) from 2017-18 to 2022-23. It is

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 09 Issue: 04 | April - 2025 SJIF Rating: 8.586 ISSN: 2582-3930

observed that the overall Trend has significant upward trend in the foreign exchange rates from 2017-18 to 2022-23. This implies a general trend of appreciation in the exchange rate, where the value of the local currency rupee against the USD has been increasing. A stronger local currency makes imports cheaper but exports more expensive, impacting trade balances. Exchange rate movements can influence inflation rates, particularly if a weaker currency leads to higher import costs. Exchange rate stability is crucial for attracting foreign investment.

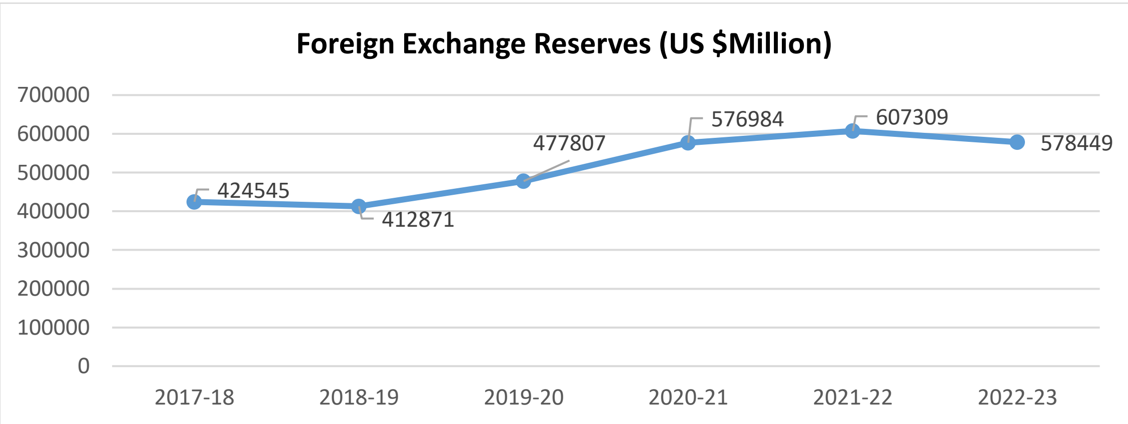
Figure 5: Foreign Exchange Rate over the years



Source: computation from https://www.rbi.org.in/

Foreign exchange Reserves are crucial for meeting external debt obligations and thus play a pivotal role in managing currency stability. Countries with trade surpluses tend to accumulate reserves, while deficits can deplete reserves. Adequate reserves boosts investor confidence and attract foreign investment. Monitoring and managing reserves will continue to be essential for economic stability and growth. Figure 6 analyses the foreign exchange reserves from 2017-18 to 2022-23 and demonstrates a dynamic trajectory reflecting the economic fluctuations and policy shifts within this period. The chart shows fluctuations in foreign exchange reserves from 2017-18 to 2022-23. From 424,545 million US dollars in 2017-18, the reserves showed a decline by 11,674 million in the subsequent fiscal year, ending at 412,871 million in 2018-19. However, the trend quickly reversed as the reserves surged to 477,807 million US dollars in 2019-20, marking a significant recovery which may be attributed to improved economic conditions, strengthened trade balances, or effective policy interventions bolstering reserves. The momentum continued into 2020-21 with foreign exchange reserves reaching 576,984 million US dollars and also into 2021-22 indicating robust economic growth and stability amidst a challenging global landscape created by the COVID-19 pandemic. This expansion likely reflects strategic measures taken by authorities to enhance economic resilience and ensure monetary stability. Despite a decline in 2022-23 to 578,449 million US dollars, the overall trend showcases a resilient performance of the economy in managing external risks and maintaining a healthy reserve position.

Figure 6: Trend Analysis of Foreign Exchange Reserves



Source: Author's Calculation

Empirical Analysis

Table 4 analyses the various characteristics of the variables using descriptive statistics and following are the key findings: The mean trade balance is the total difference between exports and imports and it showing the negative trade balance (-180,421.52 million USD) suggests that the country imports more goods and services than it exports, potentially contributing to external debt. The country has a large amount of external debt ($564.6 billion) compared to its foreign exchange reserves ($530.7 billion) and potentially it indicating a high debt burden for the country. Foreign investment is relatively moderate ($39.8 billion) and the trade balance is showing negative which signifies a sign trade deficit of ($180.4 billion). The country has a high import significantly more ($542.1 billion) than it export ($361.6 billion) and the foreign exchange rate averages $73.09 USD per unit of local currency, with moderate variability. The difference between means and medians across variables might suggest some degree of skewness or outliers influencing the mean values. The variance and skewness/kurtosis values suggest that some indicators like trade balance and total imports/exports exhibit notable variability and potentially non-normal distribution patterns.

The large standard deviations in some variables (such as trade balance, external debt, and reserves) indicate wide dispersion and potential volatility in these economic indicators. The high standard deviation in trade balance (57,824 million USD) signifies volatility in trade balance, reflecting external economic challenges. The standard deviation in imports and exports 124,227.4 million USD and 70,400.8 million USD, respectively indicates significant variability in trade activities.

The standard deviation of $34,616 million in external debt which indicates a significant variability in external debt levels. The standard deviation of 82,116 million USD of Foreign exchange reserves suggests significant fluctuations in reserve levels, reflecting potential vulnerabilities. Standard deviation of foreign investment stands at $24,241 million USD. The standard deviation of foreign exchange rate is 3.92 USD which indicates some variability in the exchange rate, which can impact trade competitiveness and debt servicing.

Table 4: Descriptive Statistics Results

	Total External Debt (US $Million)	Foreign Exchange Reserves (US $Million)	Foreign Investment Total (US $Million)	Foreign Exchange Rate (USD)	Trade Balance Total (US $Million)	Total Imports (US $Million)	Total Exports (US $Million)
Mean	564642.800	530684.000	39849.200	73.086	-180421.520	542063.620	361642.100
Standard Error	15480.847	36723.600	10840.843	1.751	25859.742	55556.181	31484.190
Median	558315.000	576984.000	30094.000	73.918	-184000.300	514078.400	330078.200
Standard Deviation	34616.227	82116.466	24240.862	3.916	57824.142	124227.398	70400.790
Kurtosis	1.197	-1.272	2.216	-0.207	1.332	-0.671	-2.549
Skewness	1.080	-0.847	1.566	0.327	-0.190	0.413	0.535

Source: Author's Calculation

Kurtosis and skewness values provide insights into the distribution and shape of the data. Most variables have positive skewness (long tail on the right), indicating that the data is skewed towards lower values with some outliers on the higher end. Kurtosis values near 0 suggest a relatively normal distribution. The skewness of trade balance is 0.41 which suggests a slight right skew in imports, possibly due to diverse import needs. Total external debt has skewness of 1.08 and positive kurtosis of 1.20 suggesting a right-skewed distribution with some outliers indicating higher debt levels. Foreign Investment has positive skewness (1.57) suggests a distribution skewed towards higher foreign investment levels.

The interdependence among the various variables affecting foreign trade is done with the help of Correlation Matrix analysis using EXCEL shown in Table 6. The values of the correlation coefficient in the matrix explain the degree of

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 09 Issue: 04 | April - 2025 SJIF Rating: 8.586 ISSN: 2582-3930

association and the sign represents the nature of association between the variables. In other words, these correlations provide insights into how these economic indicators relate to each other.

Table 6: Correlation Matrix

	Total External Debt (US $Million)	Foreign Exchange Reserves (US $Million)	Foreign Investment Total (US $Million)	Foreign Exchange Rate (USD)	Trade Balance Total (US $Million)
Total External Debt (US $Million)	1				
Foreign Exchange Reserves (US $Million)	0.7897382	1			
Foreign Investment Total (US $Million)	-0.378058482	-0.056241452	1		
Foreign Exchange Rate (USD)	0.975071526	0.870086755	-0.2212529	1	
Trade Balance Total (US $Million)	-0.529169156	-0.151335025	0.86627138	-0.434101	1

Source: Author's Calculation

The high positive correlation of 0.7897 between Total External Debt and Foreign Exchange Reserves suggests that as external debt increases, countries tend to accumulate more foreign exchange reserves. This relationship is indicative of a strategy to manage debt obligations and external financial risks by maintaining sufficient reserves, implying that countries tend to accumulate more reserves as external debt increases, indicating a strategy to manage debt risks. Higher debt levels are associated with currency depreciation, impacting trade competitiveness. The weak negative correlation (-0.3781) between Total External Debt and Foreign Investment suggests that higher external debt levels may deter foreign investment inflows. This negative relationship implies that excessive debt burdens can affect investor confidence and capital flow into the economy. The strong positive correlation (0.9751) between Total External Debt and Foreign Exchange Rate indicates that countries with higher levels of external debt may experience currency depreciation. This relationship suggests that debt levels can influence exchange rate dynamics, impacting trade competitiveness and debt servicing costs. The moderate negative correlation (-0.5292) between Total External Debt and Trade Balance Total implies that countries with higher external debt often exhibit larger trade deficits. This relationship highlights the interplay between debt levels and trade imbalances, where debt-financed imports contribute to trade deficits. The weak negative correlation (-0.0562) between Foreign Exchange Reserves and Foreign Investment suggests that the level of foreign exchange reserves has a minor impact on foreign investment inflows. Other factors such as economic stability and regulatory environment may play more significant roles in attracting foreign investment. The strong positive correlation (0.8701) between Foreign Exchange Reserves and Foreign Exchange Rate indicates that higher reserves can contribute to exchange rate stability. Central banks use reserves to intervene in currency markets, influencing exchange rate movements. The weak negative correlation (-0.1513) between Foreign Exchange Reserves and Trade Balance Total suggests a limited relationship between reserve levels and trade balances. Trade balances are influenced by multiple factors beyond reserves, such as import-export dynamics and domestic demand. The weak negative correlation (-0.2213) between Foreign Investment Total and Foreign Exchange Rate suggests that foreign investment inflows may exert a modest influence on exchange rate movements. Other macroeconomic factors and market conditions play significant roles in determining exchange rates. The strong positive correlation (0.8663) between Foreign Investment and Trade Balance indicates that higher foreign investment levels are associated with improved trade balances. Foreign investments can boost export capacity and contribute to economic growth, reducing trade deficits. The moderate negative correlation (-0.4341) between Foreign

Exchange Rate and Trade Balance suggests that exchange rate movements can influence trade balances. Currency depreciation can make exports cheaper and imports more expensive, affecting trade flows and balances.

Summing up, trade balance is found to exhibit a strong positive association with foreign investment but a negative association with foreign exchange rate and total external debt. This suggests that foreign investment plays a crucial role in improving trade balances, while high external debt levels and currency depreciation can adversely affect trade dynamics. These findings highlight the complex interactions among economic variables and their implications for a country's financial stability and trade performance.

Conclusion

In Summary, the Study paper finds that the The United States holds the strongest export-import relationship with India, transacting goods valued at 71.39 billion US dollars in exports and 46.82 billion US dollars in imports. China emerges as the largest import partner of India, with goods valued at 90.72 billion US dollars imported from China, indicating a significant import relationship. Conversely, Australia stands as India's lowest import partner, with only 17.5 billion US dollars' worth of goods imported. Engineering Goods remained the highest export commodity in , contributing significantly to India's export earnings, with a moderate growth rate of 1.23%. Electronic Goods exhibited robust growth, becoming one of the top export commodities with a notable increase of 23.72%. Petroleum, Crude & products despite a decline of -15.04%, remains the highest imported commodity with substantial value.

The impact of the COVID-19 pandemic on trade balance was evident showing a negative trade balance over the period of 2017-18 to 2022-23, contributing to external debt accumulation. The high standard deviation of $57.8 billion USD underscores volatility in trade activities. Total Imports and Exports of the country faces a substantial trade deficit, with total imports exceeding exports by a considerable margin. The variance in import and export levels underscores the complexity and variability of international trade dynamics during the pandemic era. The COVID-19 pandemic has undoubtedly influenced external borrowing trends and increased spending on healthcare and social support may have necessitated additional external borrowing to manage fiscal challenges. The growth in external debt by approximately 31% over the analysed period underscores the evolving financial landscape and borrowing dynamics of India. The impact of the COVID-19 pandemic on foreign investment was relatively significant in its declining trend in 2021-22 and 2022-23, ranging around 21,000-23,000 million US dollars. This decrease may be influenced by the ongoing global economic dynamics and post-COVID recovery phase. The foreign exchange rate exhibits moderate variability. Foreign Exchange Reserves reflected a substantial resilience in reserves signifying effective policy interventions and strategies to navigate economic challenges during the pandemic era. Trade balance is found to exhibit a strong positive association with foreign investment but a negative association with foreign exchange rate and total external debt. These findings highlight the complex interactions among economic variables and their implications for a country's financial stability and trade performance.

The data underscores nuanced shifts in India's import landscape, revealing sector-specific challenges and opportunities. Continued monitoring of these trends is crucial for policymakers, businesses, and investors to gauge market conditions and make informed decisions. Addressing sectoral challenges while leveraging growth opportunities will be instrumental in shaping India's import trajectory in the coming years.

Managerial Implications of the Study

The study of India's foreign trade scenario provides insights that can guide decision-making and strategy development for businesses, policymakers, and stakeholders involved in international trade. The analysis of the variables which are associated with foreign trade also help in providing actionable recommendations and strategic guidance to navigate the complexities of international trade. Understanding the impact of COVID 19 on various determinants of Foreign trade can help in developing recommendations for developing effective export and import strategies based on market analysis, trade agreements, and regulatory frameworks and highlight potential target markets, products with export potential, and import substitution opportunities. It will also offer insights into trade finance options such as export credit, trade insurance, and currency hedging to mitigate risks associated with foreign exchange fluctuations, payment defaults, and political instability in trading partners as well as advise on effective marketing and distribution strategies tailored to foreign markets.

Limitations of the Study:

A foreign trade study, like any research endeavour, has certain limitations. The first is data limitations. The data is essentially collected from secondary sources. Trade data collected by different countries may vary in terms of consistency, coverage, and reporting standards. This can introduce biases or inaccuracies in the analysis. The timeframe of the study may impact the interpretation of results. Short-term studies may capture transient trends or fluctuations, whereas long-term studies may overlook recent developments or changes in trade dynamics. International trade involves a complex interplay of multiple variables such as economic, political, social, and technological factors. this study has limited its scope to qualitative analysis of the impact of only few variables like foreign investment, total external debt, foreign reserves and foreign exchange rate. The study leaves scope for more in depth analysis of the impact of these variables. This study has not considered changes in trade policies, regulations, or geopolitical events which can have significant implications for trade outcomes. The study may focus on specific aspects of foreign trade (e.g., exports, imports, trade balances) while overlooking other important dimensions such as trade in services, intellectual property rights, or non-tariff barriers.

Reference

Ando.M & Hayakawa.K (2022), Impact of COVID-19 on Trade in Services, Japan and the World Economy, Volume-62, ISSN 0922-1425

Augustin.P (2022), In sickness and in debt: The COVID-19 impact on sovereign credit risk, Journal of Financial Economics, Volume-143, ISSN: 0304-405X

Botre.P. R (2018), A Study on Foreign Trade in India: An Overview, Pune Research Scholar an International Multidisciplinary Journal, Volume-04, ISSN: 2455-314X

Gopalakrishnan A & Mahalakshmi. A (2018), A Study on Impact of Foreign Trade in India in The Post Liberalisation Era, Shanlax International Journal of Economics, Volume-06, ISSN: 2319-961X

Gupta.S (2019), An Analysis of Indian Foreign Trade in Present Era, International Journal of Engineering and Management Research, Volume-09, e-ISSN: 2250-0758 | p-ISSN: 2394-6962

Handoyo, R.D. (2020). Impact of Covid 19 on Trade, FDI, Real Exchange Rate and Era of Digitalization: Brief Review Global Economy during Pandemic, Journal of Developing Economies, Volume-05, p-ISSN: 2541-1012; e-ISSN: 2528-2018

Hayakawa, K and Mukunoki, H (2021), The impact of COVID-19 on international trade: Evidence from the first shock, Journal of the Japanese and International Economies, volume 60, issue C, DOI: 10.1016/j.jjie.2021.101135

Hayakawa, K Lee, H and Park, C (2022), The Effect of COVID-19 on Foreign Direct Investment, Asian development Bank Economics Working Paper Series No. 653, Available at SSRN: https://ssrn.com/abstract=4060417 or http://dx.doi.org/10.2139/ssrn.4060417

Mishra.M (2021), India's Foreign Trade – An Overview, International Journal of Engineering and Management Research, Volume-11, e-ISSN: 2250-0758 | p-ISSN: 2394-6962

Okenna, N.P (2020), The Importance of International Trade to the Economies of Developing Countries, International Journal of Economics and Management Science, Volume-09, ISSN: 2162-6359

Revathy. B & Kailash.M 2012), Globalization and India's Foreign Trade, International Journal of Advanced Research in Management and Social Sciences, Volume-01,ISSN: 2278-6236

Saini, S.R & Aggarwal, K (2020), India's foreign trade with ASEAN: An overview, Journal of Emerging Technologies and Innovative Research, Volume-07, ISSN-2349-5162

Sinaga, A.P. (2022), Inflation, Foreign Exchange, Interest Rate, Trade Balance, Payment Balance on Growth in The Covid-19 Pandemic, Socio-Economic Challenges, Volume-06, ISSN (print) – 2520-6621, ISSN (online) – 2520-6214

Tiwari, N.K (2021), A Comparative Study of India's Foreign Trade in Pre and Post Reform Era, International Research Journal of Modernization in Engineering Technology and Science, Volume-03, e-ISSN: 2582-5208

Tudorache, A.T. & Nicolescu.L (2023), Insights about the Effects of COVID-19 on International Trade during the Main Pandemic Years in Romania and Poland, Sustainability 2023, Volume-15 (ISSN 2071-1050)

Volume: 09 Issue: 04 | April - 2025 SJIF Rating: 8.586 ISSN: 2582-3930

Vidya, C. T. (2022), Has Covid-19 Shaken the World Trade and China's Pre-eminence? Asian Economics Letters, Volume-03, ISSN: 2652-8681

Wysokińska.Z (2023), Global and European Foreign Trade during the COVID–19 Pandemic, Comparative Economic Research. Central and Eastern Europe, Volume-26

https://www.rbi.org.in/

https://commerce.gov.in/

https://en.wikipedia.org/

https://www.ide.go.jp/

https://ideas.repec.org/

Annexure

Annexure I: Major Export and Import Partners and their share of India for 2022-23

Rank	Country	Export Value (US$ billion)	Import Value (US$ billion)
1	United States	71.39	46.82
2	United Arab Emirates	28.76	48.88
3	Netherlands	18.53	
4	China	13.6	90.72
5	Singapore	11	21.7
6	United Kingdom	10.27	
7	Saudi Arabia	9.69	38.62
8	Hong Kong	9.36	
9	Germany	9.21	
10	Brazil	9.19	
11	Indonesia	26.89	
12	Australia		17.5
13	South Korea		19.26
14	Russia		41.56
15	Iraq		31.52

Rank	Country	Share of overall exports	Share of overall imports
1	United States	17.45%	7.14%
2	United Arab Emirates	7.03%	7.45%
3	Netherlands	4.53%	
4	China	3.33%	13.83%
5	Singapore	2.69%	3.31%
6	United Kingdom	2.51%	
7	Saudi Arabia	2.37%	5.89%
8	Hong Kong	2.29%	
9	Germany	2.25%	
10	Brazil	2.25%	
11	Australia		2.67%
12	South Korea		2.94%

Annexure III: foreign trade Indicators

Years	Foreign Investment (US $Million)	Foreign Exchange Reserves (US $Million)	Total External Debt (US $Million)	Foreign Exchange Rate (USD)	Trade Balance Total (US $Million)	Total Imports (US $Million)	Total Exports (US $Million)
2017-18	52401	424545	471012	65.1216	-162054.8	465581	303526.1
2018-19	30094	412871	529278	68.3895	-184000.3	514078.4	330078.2
2019-20	44417	477807	543135	70.4203	-161348.2	474709.3	313361
2020-21	80092	576984	558315	74.0996	-102627.4	394435.9	291808.5
2021-22	21809	607309	573410	73.918	-191047.7	613052.1	422004.4
2022-23	22834	578449	619076	78.6045	-263084	714042.4	450958.4