

THE EFFECTS OF CURRENCY FLUCTUATIONS ON GLOBAL COMMERCE

Monika Rawat,

Asst. Professor, Department of Commerce, Graphic Era Hill University,
Dehradun Uttarakhand India

ABSTRACT

Foreign exchange refers to the buying and selling of different national currencies or units of account. The value of one currency in terms of another has a major impact on the economy and hence the standard of living in a nation. The price of imported items goes up (down) for consumers when the native currency is strong, whereas a weak domestic currency tends to help (hurt) exporters because they will sell more (less) abroad. Because it may benefit or hinder various factions inside a nation, the exchange rate is also very important. Britain was able to stretch its business interests far and wide as international commerce increased because it had the biggest and most powerful fleet of any country. As a result, it developed into the trade powerhouse with the largest empire of colonies.

Keywords: Foreign Exchange, Fixed Deposits, Bank Deposits, Precious Stones, Insurance Policies

INTRODUCTION

Currency changes have a significant influence on international trade, investments, and regional and national economic development. It is critical for companies, governments, and policymakers to comprehend the consequences of currency changes in today's linked world where international transactions are the norm. The goal of this research study is to examine the complexity and difficulties posed by currency fluctuations and their effects on international trade. Multiple variables, such as macroeconomic statistics, market sentiment, geopolitical developments, and monetary policies, may cause currency volatility. The value of currencies may be affected by macroeconomic variables including interest rates, variations in inflation, trade imbalances, and governmental policies. Currency fluctuations are also heavily influenced by market mood and speculation, which are motivated by investor confidence and risk aversion. Geopolitical crises and macroeconomic shocks may also cause significant currency changes, which can hamper international trade.

The impact of currency changes on world trade is extensive. By affecting export competitiveness, import pricing, and trade conditions, fluctuations have an influence on trade competitiveness. Currency exchange rates may also have an impact on consumer buying power by affecting the affordability of imports and inflation rates. Exchange rate exposure affects profit margins, global competitiveness, and investment choices for businesses. Furthermore, currency swings have an impact on capital flows, which has an impact on market volatility and cross-border investments. Strategies and regulations designed to control exchange rate risks and promote stability are needed to lessen the consequences of currency volatility. Forward contracts, futures, options, and swaps are examples of currency hedging tools that help firms control the effects of exchange rate fluctuation. Currency stabilization is greatly aided by monetary and fiscal policies, such as central bank interventions, changes to interest rates, and management of foreign currency reserves. Currency pegs, regional trade agreements, and currency unions are examples of trade policies and economic integration initiatives that help keep international commerce predictable and stable. A mixed-methods strategy will be used in this research report, integrating quantitative and qualitative analysis. To find correlations between currency swings and factors related to international trade, quantitative analysis will include looking at historical exchange rate data, macroeconomic indicators, and statistical modeling. Case studies, interviews, and surveys will be used in qualitative research to get a greater understanding of how currency changes affect various industries, geographic areas, and supply networks. This research article seeks to further our comprehension of this nuanced connection by examining the factors that influence currency fluctuations and possible mitigation measures for their negative impact on international trade. The study's conclusions and suggestions may help organizations,

governments, and policymakers deal with the difficulties brought on by currency volatility and promote sustainable international trade in a world that is becoming more linked.

LITERATURE REVIEW

Yujing Han (2019) Trade between nations is advancing under the circumstances of an open economy. As a result, the volatility in the exchange rate has become a significant determinant in the economic development of the nation. In this study, a significant amount of data gathered from the World Bank were screened and eliminated in order to thoroughly understand the mechanism of the impact of exchange rate changes on economic development. In addition, data for 125 countries from 1997 to 2017 were retrieved in order to create panel models. Regression research shows that foreign direct investment significantly boosts economic development. Various nations have various consequences of exchange rate volatility on economic development. The effect of exchange rate fluctuations on economic development, however, is stronger when it occurs via foreign direct investment channels than when it occurs through foreign trade channels.

Yuxin Zhao (2020) This essay examines the effect and influence on the exchange rate from a number of angles. First, this article introduces the key variables that the exchange rate, export, pricing, and costs impact. Productivity is the rise that results from the local currency's strength. Thus, it suggests that productivity is impacted by the exchange rate. The impact on the amount of visitors is the last crucial aspect. Some recommendations for exchange rate policy are made after examining the effects of the exchange rate. The exchange rate is a crucial component, therefore it's important to prioritize both logical operation and wise policy application.

Mehtiyev, J., et.al (2021). As the volume of international commerce increases, so does the number of regulatory actions that might be seen as trade barriers. One of these challenges is fluctuation in exchange rates, which has direct and indirect effects on commerce. A country's trading partners and trade balance might be affected by fluctuations in the value of its currency. One of the study's findings is that changes in monetary policy might have far-reaching consequences for international commerce. While changes in exports may take some time to take effect, shifts in import levels occur more quickly. The effects of inflation and devaluation on the trade balance are analyzed, along with their interplay. This article demonstrates and analyzes the impact of currency volatility on exports using a case study of the Azerbaijani currency depreciation. The impacts of inflation and devaluation on a country's import volume are also investigated by means of correlation and multiple regression analyses using data collected from the OECD and the World Bank. According to the findings, imports and exports both have a considerable negative influence on the trade balance due to exchange rate volatility. The findings show that the exchange rate has an impact on international commerce as a non-trade barrier.

Ionel Bostan, ID et.al (2018) The purpose of this study is to give a theoretical and empirical evaluation of the impact of exchange rates on the competitiveness of international commercial trade. This study aims to examine the influence of the exchange rate on Romania's competitiveness in international trade by looking at the effects on exports and imports. The major goal of the research is to evaluate the intricate interactions between these factors and the impact of the exchange rate on global trade competitiveness in the present. Exports and imports are dependent variables in the empirical part's regression analysis, which also includes a number of other factors.

Christopher L. House, et.al (2019) Our analysis makes use of differences in trade exposure among U.S. states to look at how changes in the exchange rate impact economic activity on a business cycle time scale. We find that a decline in the trade-weighted real exchange rate between states is associated with an increase in manufacturing hours and a decline in the unemployment rate. We develop a multi-regional model that incorporates trade and labor flows across states, and we calibrate it to reflect the magnitude and direction of exports from each individual state. The model accurately captures the connection between unemployment and currency rates. According to alternative scenarios based on the model, cross-state labor market and trade links help to explain cross-sectional trends in economic activity.

RESEARCH METHODOLOGY

The study design, sample design, sources of data, selection of data, alternative designs, and procedures for data analysis are all included in the research methodology. The following describes the technique followed

for the current study: The study relies heavily on an in-depth analysis of secondary sources, such as books, journals, government documents, articles, and online publications covering various aspects of foreign exchange.

Testing Hypotheses

- There are no appreciable distinctions between the currencies, according to Ho (Null hypothesis).
- H1 (Alternative Hypothesis): The currencies vary significantly from one another.

DATA ANALYSIS

For a few foreign currencies, consistency, compound annual growth rate, correlation, and hypothesis testing are used in the analysis and interpretation of data to assess return and risk.

Return

A return on investment is a profit. It includes any change in the investment's value as well as any cash flows that the investor gets. ROI is $(\text{Net Profit}/\text{Cost of Investment}) * 100$.

Interpretation

Provides the details Swiss Francs versus the Indian Rupee stand out as the best-performing sample of the study's various currencies, with yearly returns of 4.3983 percent. Which falls between 4.3983 and 2.0423.11 of the 13 currencies being studied show positive returns, with values ranging from 4.3983 to 2.0423

Table 1. Return of Selected Foreign Currencies

Currencies	Return	Rank
GBP VS INR	2.767064727	10
USD VS INR	3.371372744	5
CAD VS INR	3.345257525	6
CHF VS INR	4.398373146	1
HKD VS INR	3.320424499	7
EUR VS INR	3.08187702	8
AUD VS INR	2.899706652	9
SEK VS INR	2.042391702	11
NZD VS INR	3.4518265	3
ZAR VS INR	-1.326282716	12
JPY VS INR	3.526325615	2
MXN VS INR	-0.790544845	13
SDG VS INR	3.401596695	4

Table 2. Risk of Selected Foreign Currencies

Currencies	Risk	Rank
GBP VS INR	8.480315023	7
USD VS INR	7.992780541	4
CAD VS INR	6.349785878	2
CHF VS INR	9.55938318	10
HKD VS INR	8.156744308	5
EUR VS INR	9.237744739	9
AUD VS INR	8.191812688	6
SEK VS INR	9.79091702	8
NZD VS INR	10.37144115	11
ZAR VS INR	13.45424591	13
JPY VS INR	12.38530205	12
MXN VS INR	7.067562741	3
SDG VS INR	6.160367291	1

Risk

In accounting and finance, the phrase "risk" refers to the unpredictability of a future occurrence having a favorable result. To rephrase, risk is the possibility that an investment may turn out badly and cause financial loss to the backer. All business decisions are grounded on the premise that future performance and earnings are contingent on a number of variables outside of the company's control.

Interpretation

The least risky currency is the Sudan pound, which is 6.1603, followed by the Canadian dollar, 6.3497, the Mexican peso, 7.067, the US dollar, 7.99, the Hong Kong dollar, 8.16, and the Australian dollar.

Table 3. Consistency of Selected Foreign Currencies

Currencies	Consistency	Ranks
GBP VS INR	3.064733159	9
USD VS INR	2.370779249	4
CAD VS INR	1.898145608	2
CHF VS INR	2.173390675	3
HKD VS INR	2.4565366	5
EUR VS INR	2.997441066	7
AUD VS INR	2.825048763	6
SEK VS INR	4.793848805	11
NZD VS INR	3.004624116	8
ZAR VS INR	-10.14432726	13
JPY VS INR	3.512240049	10
MXN VS INR	-8.940116153	12
SDG VS INR	1.811022247	1

The other currencies included in the research have values over 10. The dollar is 8.19, the euro is 9.2377, and the swedish krona is 9.79.

Consistency is one of the analytical tools in evaluating performance of currencies.

The co-efficient of variation is used to measure it. The degree of consistency increases with increasing co-efficient of variances and vice versa. Coefficient of variation is calculated as $\text{STD Deviation/Average Return} * 100$.

Interpretation

Sudan's currency has been the most reliable over the research period.

Table 4. Compound annual Growth Rate of Selected Foreign Currencies

Currencies	CAGR (%)	Rank
GBP VS INR	2.051449523	12
USD VS INR	3.076417006	5
CAD VS INR	3.279219263	4
CHF VS INR	4.817238965	1
HKD VS INR	3.017228686	7
EUR VS INR	3.059716688	6
AUD VS INR	2.599283659	9
SEK VS INR	2.183407346	11
NZD VS INR	2.899266987	8
ZAR VS INR	-2.252975019	10
JPY VS INR	3.698431719	2
MXN VS INR	-0.91358078	13
SDG VS INR	3.367072387	3

Increment in dollars is 1.811. Canadian Dollar, which is worth 1.89, comes next. Eight currencies, ranging in value from 2 to 5, are listed below the fourth currency. The other currencies all exhibit negative consistency. CAGR of a Selected Group of Foreign Currencies Any investment that allows you to take advantage of compounding may help you increase your initial investment and increase your wealth. CAGR reveals how much an investor's investment increased within a certain time frame. It is, in other words, the average returns a shareholder has realized on their investments over a certain period, let's say one year. the lending institution or bank calculates this rate in terms of percentage.

$$\text{CAGR} = (\text{Ending value} / \text{Starting value})^{(1/n-1)} - 1$$

Interpretation

The two currencies have negative compound annual growth rates, whereas the majority of currencies have CAGRs of less than 5%.

Correlation

The degree of similarity between two or more variables is measured by the statistical concept of correlation. How much one variable increases when another decreases is shown by a positive correlation, and how much the inverse is true is demonstrated by a negative correlation.

Interpretation

Euro vs. British Pound, Swedish Krona vs. British Pound, Japanese Yen vs. Canadian Dollar, Sudanese Pound vs. Canadian Dollar, Sudanese Pound vs. United States Dollar, Swiss Franc vs. Euro and Swedish Krona, Australian Dollar vs. New Zealand Dollar, Hong Kong Dollar vs. Japanese Yen and Sudanese Pound, Japanese Yen vs The New Zealand Dollar, South African Rand, Kong Dollar, and US Dollar all have very weak positive relationships with the currencies being studied. The Swedish Krona and the Swiss Franc both have significant positive relationships with the Euro currency. The Australian Dollar and the New Zealand Dollar have a strong positive relationship.

Hypothesis Testing

A t-test is a kind of inferential analysis used to determine whether there is a statistically significant difference between the means of two groups whose data follow a normal distribution and may have unknown variances. The at-test is a statistical method for verifying hypotheses that may be generalized to a whole population. The degrees of freedom, t-distribution values, and t-statistics are all taken into account by a t-test to determine statistical significance. When comparing three or more means, an analysis of variance must be performed.

Interpretation

Statistics clearly show that there are no significant differences between one currency and another during the study period, so the null hypothesis has been accepted. Since this is the case for all of the currencies being studied, there are no significant differences between any of the currencies during the study period.

Table 5. Calculation of Correlation on Foreign Currencies

Name	GBP VS INR	USD VS INR	CAD VS INR	CHF VS INR	HKD VS INR	EUR VS INR	AUD VS INR	SEK VS INR	NZD VS INR	ZAR VS INR	JPY VS INR	MXN VS INR	SDG VS INR
GBP VS INR	1.00												
USD VS INR	0.32	1.00											
CAD VS INR	0.45	0.36	1.00										
CHF VS INR	0.47	0.41	0.52	1.00									
HKD VS INR	0.31	1.00	0.37	0.42	1.00								
EUR VS INR	0.60	0.24	0.52	0.79	0.24	1.00							
AUD VS INR	0.29	-0.28	0.42	0.46	-0.27	0.45	1.00						
SEK VS INR	0.56	-0.07	0.50	0.69	-0.06	0.81	0.60	1.00					
NZD VS INR	0.45	-0.24	0.19	0.38	-0.24	0.42	0.82	0.53	1.00				
ZAR VS INR	0.12	-0.04	0.36	0.31	-0.03	0.39	0.30	0.35	0.29	1.00			
JPY VS INR	0.20	0.56	0.36	0.58	0.56	0.42	0.22	0.34	0.34	0.19	1.00		
MXN VS INR	0.34	0.29	0.56	0.35	0.28	0.27	0.12	0.32	0.07	0.07	0.07	1.00	
SDG VS INR	0.45	0.67	0.69	0.68	0.67	0.53	0.29	0.38	0.16	0.13	0.64	0.51	1.00

Table 6.Hypotheses Testing (T-Test)

Name	T Test		P Value		Significant At 5% Level		One Tail		Two Tail	
	One Tail	Two Tail	One Tail	Two Tail	One Tail	Two Tail	Null Hypothesis	Alternative Hypothesis	Null Hypothesis	Alternative Hypothesis
GBP VS INR	-0.25	-0.25	0.40	0.80	0.05	0.05	Accepted	Rejected	Accepted	Rejected
USD VS INR	0.01	0.01	0.50	0.99	0.05	0.05	Accepted	Rejected	Accepted	Rejected
CAD VS INR	-0.44	-0.44	0.33	0.66	0.05	0.05	Accepted	Rejected	Accepted	Rejected
CHF VS INR	0.41	0.41	0.34	0.68	0.05	0.05	Accepted	Rejected	Accepted	Rejected
HKD VS INR	0.09	0.09	0.46	0.93	0.05	0.05	Accepted	Rejected	Accepted	Rejected
EUR VS INR	0.07	0.07	0.47	0.94	0.05	0.05	Accepted	Rejected	Accepted	Rejected
AUD VS INR	0.32	0.32	0.37	0.75	0.05	0.05	Accepted	Rejected	Accepted	Rejected
SEK VS INR	-0.47	-0.47	0.32	0.64	0.05	0.05	Accepted	Rejected	Accepted	Rejected
NZD VS INR	1.35	1.35	0.09	0.18	0.05	0.05	Accepted	Rejected	Accepted	Rejected
ZAR VS INR	-1.27	-1.27	0.10	0.21	0.05	0.05	Accepted	Rejected	Accepted	Rejected
JPY VS INR	1.45	1.45	0.08	0.15	0.05	0.05	Accepted	Rejected	Accepted	Rejected
MXN VS INR	-2.14	-2.14	0.02	0.04	0.05	0.05	Rejected	Accepted	Rejected	Accepted
SDG VS INR	0.29	0.29	0.39	0.77	0.05	0.05	Accepted	Rejected	Accepted	Rejected

Table 7.Correlation of Selected Foreign Currencies

Sources	Degree of Freedom DF	Sum of Squares SS	Mean Square MS	F-test	P-Value
Between Groups	12	0.0799	0.0067	0.7-781	.673
Within Groups	286	2.4469	.0086		
Total	289	2.5268			

CONCLUSION

The foreign currency market (forex) is the largest financial market in terms of daily trading volume. the Futures and Stock Exchange together in New York. Even newbies to the market may now engage in forex trading thanks to the reduction of "buyin" restrictions. The present empirical study aims to understand and evaluate how currency risk is managed by Indian businesses of various sizes that engage in international commerce. It is possible to conclude that the respondent firms had higher than average currency exposure based on the examination of 90 enterprises. Indian business enterprises have not taken the problem of

currency vulnerability seriously enough, despite their high degree of risk. This is evident from the fact that they fail to maintain a separate department or practice, give little weight to a variety of factors that must be considered when assessing currency exposure, calculate their foreign exchange risk position asymmetrically, fail to calculate the impact of currency fluctuation on profitability, ignore forecasting currency movement for assessment and management of currency exposure, and fail to compute the impact of currency fluctuation on sales. The great majority of respondents manage their currency risk, but they do not take it as seriously as they should. Respondents to the current study assert that laws in India are not stringent, but when it comes to managing currency risk, they feel that the government and RBI are not doing enough to assist them in doing so. They believe that the RBI and the government will take proactive steps to enable domestic currency invoicing, offer state-of-the-art exposure management technology, ensure more affordable exposure management, reinstate Sec. 80 HHC and other tax benefits, and most importantly, provide prompt export sops.

REFERENCES

1. Yujin Han (2019) The Impact of Exchange Rate Fluctuation on Economic Growth
2. Yuxin Zhao (2020) The Influence and Impact of the Exchange Rate on the Economy
3. Mehtiyev, J., Magda, R., & Vasa, L. (2021). Exchange rate impacts on international trade. *Economic Annals-XXI*, 190(5-6(2)), 12-22. doi: <https://doi.org/10.21003/ea.V190-02>
4. IonelBostan ,* ID , Carmen Toderas, cu (Sandu) and Bogdan-NarcisFirtescu (2018) Exchange Rate Effects on International Commercial Trade Competitiveness
5. Christopher L. House, Christian Proebsting, Linda L. Tesar (2019) Regional Effects of Exchange Rate Fluctuations
6. Héricourt, Jérôme, and Sandra Poncet. 2015. Exchange Rate Volatility, Financial Constraints, and Trade: Empirical Evidence from Chinese Firms. *The World Bank Economic Review* 29: 550–78
7. Ahmed, A, M A Appendino, and M Ruta (2015), "Depreciations without exports? Global value chains and the exchange rate elasticity of exports", *World Bank Policy Research Working Paper No. 7390*
8. Arbatli, E and H H Hong (2016), "Singapore's Export Elasticities: A Disaggregated Look into the Role of Global Value Chains and Economic Complexity", *IMF Working paper WP/16/52*
9. Amiti, M, O Itskhoki, and J Konings (2014), "Importers, exporters, and exchange rate disconnect", *American Economic Review* 104(7): 1942-78.
10. Boehm, C, A Flaaen, aZnd N Pandalai-Nayar (2018), "Input Linkages and the Transmission of Shocks: Firm-Level Evidence from the 2011 Tōhoku Earthquake", *Review of Economics and Statistics*, forthcoming.
11. Boz, E, G Gopinath, and M Plagborg-Møller (2017), "Global trade and the dollar" *NBER Working Paper w23988*.
12. Demian, C-V and F di Mauro (2017) "The exchange rate, asymmetric shocks and asymmetric distributions", *International Economics*.
13. de SBought, Sold and Bought Again: Complex value chains and export elasticities", *World Bank Policy Research Working Paper Series No. 8535*.
14. de Soyres, F. and Gaillard, A. (2019a). "Value added and productivity linkages across countries". *FRB International Finance Discussion Paper No.1266*.
15. Imbsoyres, F, E Frohm, V Gunnella and E Pavlova (2018), ", J, and I Mejean. (2017), "Trade elasticities", *Review of International Economics* 25(2): 383-402.