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"A SCRUTINY OF THE INDIAN RUPEE EXCHANGE RATE'S VOLATILITY BETWEEN THE 2008 FINANCIAL CRISIS AND THE COVID-19 PANDEMIC"

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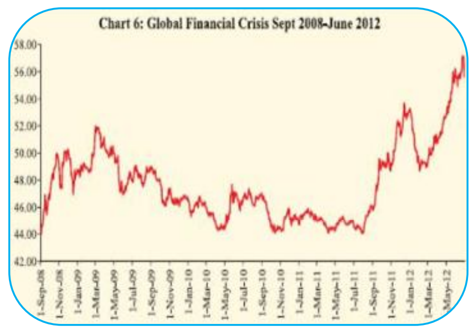
ABSTRACT:

One of the key elements affecting India's influx of foreign currency is the value of the rupee relative to the currencies of other nations. Additionally, it controls the market's international monetary power. The value of the Indian rupee has steadily declined over the past few decades, which means exporters are receiving less foreign cash for their goods. The value of the Indian rupee has depreciated by about half between 2008 and 2020, according to the exchange rate between the rupee and the US dollar, which has more than doubled since 2008. The value of the rupee has also fallen significantly during the new coronavirus disease outbreak of 2019 and the 2008 global financial crisis. The attempt to evaluate the volatility of the Indian rupee during the two crises. In order to analyze the Indian rupee exchange rate volatility during the 2008 global financial crisis and from January 2020 to May 2020 to analyze the Indian rupee exchange rate volatility during the Covid-19 pandemic situation, secondary data of the monthly average value of the Indian rupee against the US dollar from July 2008 to November 2008 and from January 2020 to May 2020 are used. In this investigation, the trend line, Kolmogorov-Smirnov test, and t-test were employed. The outcome demonstrates that the rupee's value declined in the same direction, although it did so more rapidly in 2008 during the height of the world financial crisis.



KEY WORDS: *Economic Crisis, Financial Crisis-2008, Covid-19, Rupee Exchange Rate.*

INTRODUCTION

One of the prime determining elements of the Indian economy globally is the value of the rupee. Additional temporary changes will have an impact on the income and costs of Indian exporters and importers. The value of the Indian rupee should be less erratic relative to other currencies, according to the government. A country is on the wrong route to achieving the desired status in the world trade market if its currency is moving at an astronomical rate. One of the most worrying trends over the past few decades has been the decline in the value of the Indian rupee against the US dollar, especially since the 2008 Global Financial Crisis. It results in India's influence on the world market declining. The Indian government is still powerless to stop the rupee's decline in value relative to other currencies. The Indian exporter has been harmed by receiving a modest sum for their export volume as a result of the decreasing rupee. If the value of the rupee has not decreased, they will undoubtedly receive more foreign currency units in exchange for their export. The value of the Indian Rupee relative to the currencies of industrialized nations, such as the US Dollar, British Pound, Euro, and Japanese Yen, has been significantly impacted during times of global economic crisis, such as the Global Financial Crisis (GFC) of 2008 and the current Coronavirus pandemic (COVID-19). During this economic crisis, the Reserve Bank of India (RBI) has made significant efforts to manage the value of the rupee.

Financial Crisis at Global Level (GFC-08) 2008:

One of the largest shocks to the entire global financial system in almost a century was the Global Financial Crisis (GFC), which began in 2008. The banking system in every nation worldwide was destroyed by the GFC of 2008. The United States banking and financial sectors were the first to be affected by this financial crisis, which then expanded to Europe and other developed nations. Lehman Brothers, one of the largest financial institutions in the world, went bankrupt in September 2008 as a result of the financial crisis. Due to the financial crisis, all forms of energy have increased in price on the worldwide market, as has the rate of inflation. The value of the Indian rupee was impacted by this worldwide financial crisis. Due to the 2008 financial crisis, it began to deteriorate starting in July 2008.

The Causes of the Coronavirus Epidemic:

One of the infectious disorders, the Novel Coronavirus Disease, 2019, or COVID-19, was initially discovered in December 2019 in Wuhan, China. This virus first affected all of Europe before spreading to the rest of the world. Since this virus typically spreads when people are in close proximity to one another, most countries declared a nationwide lockdown to stop community spread. The government's lockdown led to an increase in the jobless rate and a decline in production. The Indian government also implemented a complete lockdown from the middle of March 2010 to May 2020 and is gradually restoring access starting in June 2020. All of the nations experienced economic difficulty during this time, including India.

Why the study is necessary?

The Covid-19 virus has had a significant impact on the entire Indian economy. One of the key elements in determining global economic power is the daily exchange rate of the Indian Rupee. The value of the rupee has decreased significantly since the global financial crisis of 2008. By lowering the value of the rupee, the Indian exporter would receive less foreign cash for their export. It also adds to India receiving relatively little foreign exchange. The government also made an effort to stop the rupee's value from falling more, but it was unsuccessful. When there is an economic crisis, currency rate predictions made by global experts also fall flat. This effort was made to gain access to the Indian rupee's volatility in relation to the US dollar during the Covid-19 pandemic and the 2008 global financial crisis.

Literature Review:

Due to the brand-new, unanticipated Coronavirus sickness in 2019, which had an impact on all investors and their businesses, the entire economy experienced a terrible year. During an economic crisis, the exchange rate and stock price fluctuate together strongly, and the government may boost the economy and stock market to attract more capital during this time (Lin, 2020). Due to a significant budget and current account deficit as well as relative exchange rate pressure, the Indian economy usually suffers (Singh and Mishra, 2016). All commodities and related products exports are significantly impacted by exchange rate volatility, while all commodities are positively impacted by the gross domestic product (Personal and Archive, 2018). Conditions at home and abroad show that the value of the Indian Rupee has fallen during the crisis period (Gupta, Vivek, 2014). The REER variation was caused by a poor appreciation result, not a depreciation effect (Cheung, 2012). the value of the Indian rupee value against the USD is a typical occurrence for the struggling economy in recent months (Garage, 2018). Global financial and economic chaos is inevitable given that we have a globalized economy (Kshatrapati Shivraj, 2020). One of the necessary strategies for recovering the economy from the crisis is portfolio diversification across asset classes (Pami Dua, 2020). The exchange rate risk factor has been a significant contributor to stock returns over the past four years, particularly during the current economic crisis (Bhadur, 2020).

Objectives:

1. To can access the trend line of the Indian rupee's value relative to the US dollar during the Covid-19 outbreak and the 2008 global financial crisis.
2. To determine how the value of the rupee fluctuated in relation to the US dollar during the Covid-19 outbreak and the global financial crisis of 2008.

Hypothesis:

H0: The Indian rupee's value relative to the US dollar did not fluctuate throughout the global financial crisis of 2008 and the Covid-19 outbreak.

Research Methodology:

The trend line and volatility of the Indian rupee versus the US dollar throughout the 2008–2019 period of the new coronavirus epidemic were the main topics of this study. Using a statistical package for social sciences, the study's findings were ascertained using secondary data on the monthly average value of the Indian rupee against the US dollar from July 2008 to November 2008 during the global financial crisis and from January 2020 to May 2020 during the coronavirus disease in 2019. (SPSS). Trend lines, the Kolmogorov-Smirnov normality test, and the t-test were employed in this study to compare mean differences during the two economic crisis periods.

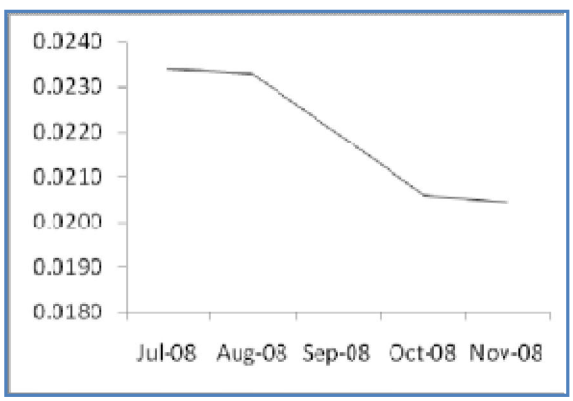
Limitations of the Study:

Only rupee value volatility relative to the dollar during two recent economic crises was examined in the study. For the first five months of these periods in two crises, it has taken the monthly average rupee value against the dollar.

Findings from the Study:

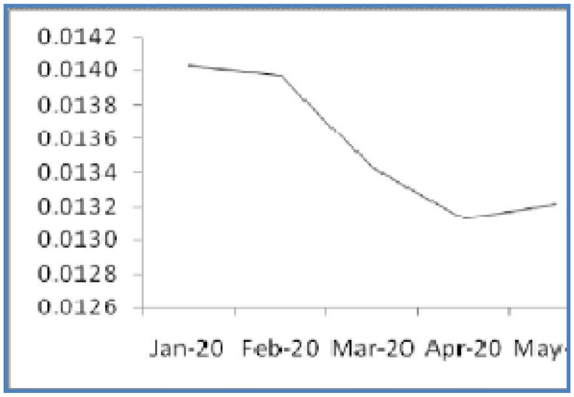
Value of the Indian Rupee in relation to the US Dollar during the GFC of 2008 and COVID-19

Figure – 1 GFC 2008 period



According to Figure 1, the rupee value was'0.0234 ('42.758/ $1) when the global financial crisis hit India's economy in July 2008, and it was'0.0204 ('48.937/ $1) in November 2008.

Figure -2 COVID-19 period



. According to Figure 2, the exchange rate between the rupee and the dollar was Rs. 0.0140 ('71.294/ $1) during the epidemic in India in January 2020 and Rs. 0.0132 ('75.674/ $1) in May 2020.

In both the global financial crisis of 2008 and the coronavirus diseases crisis of 2019, the trend line of the Indian rupee value against the dollar is depicted as a parallel line, which means that the rupee value slightly declined for one month, then there was significant decrease for the following two months, and then it changed slightly in the following month. However, the percentage of the rupee's value falling against the dollar during the global financial crisis is larger than it was during the time of the coronavirus disease pandemic.

Table 1: During the Covid-19 pandemic and the 2008 global financial crisis, the Indian rupee's value fluctuated in relation to the US dollar.

Period	Kolmogorov- Smirnov		t-Test Results			
	Statistic	Sig.	Mean	Std. Deviation	t	Sig. (2-tailed)
GFC- 2008	.230	.200*	.02194 000	.001427 585	18. 552	.000
COVID-19	.256	.200*	.01354 000	.000433 590		

From Table 1, we can infer that because the P-Value in the Kolmogorov-Smirnov test is greater than the 0.05 level of significance, the data are regularly distributed. The average rupee value during the global financial crisis of 2008 was 0.02194 versus the US dollar, and it was Rs.0.1354 during the pandemic condition of Covid-19, according to the t-test for mean differences. The Indian rupee was more volatile during the 2008 global financial crisis than it was during the Covid-19 outbreak.

Hypothesis Result:

The alternative hypothesis is accepted since the P-value is less than the 0.05 level of significance, rejecting the null hypothesis. This indicates that the volatility of the rupee's value relative to the US dollar during the global financial crisis of 2008 and the Covid-19 pandemic situation differed significantly.

CONCLUSION:

The results of the study demonstrate that the exchange rate of the Indian rupee and the US dollar exhibited almost the same trend line during the global financial crisis of 2008 and coronavirus illnesses in 2019. This indicates that the GFC-08 and COVID-19 economic crises both influenced the rupee's value relative to the dollar in the same way. But in the fifth month (May 2020) following the unusual COVID-19 outbreak, the value of the rupee against the US dollar significantly increases. This means that the volatility of the rupee during the global financial crisis of 2008 was greater than it was during the pandemic condition of the Covid-19 time.

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