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A Study of Determinants of Indian Rupee Valuation against US Dollar

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Abstract

The value of the Indian Rupee (INR) is generally affected by demand and supply economics. India's demand for oil and gold creates a demand for US dollars to settle the payments, as these payments need to be settled in hardcore currency. Along with this, any Indian firm's investment outside the country also creates the demand for US Dollars for paying for the investment. On the other hand, the export of Indian goods and services, foreign direct investments (FDIs) by companies in Indian companies and subsidiaries, and the investment by foreigners in Indian stock and bond markets typically create the supply of US Dollars. Whenever the demand of INR exceeds the supply of INR, the currency appreciates and *vice versa*. The present paper is an effort to understand the major determinants of Indian rupee valuation conceptually. Inputs given in the paper are based on many previous studies on the same.

Keywords: Foreign direct investment (FDI), Indian Rupee (INR), Valuation.

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Introduction

With the sole exception, everyone on this earth uses money. Money is the value assigned to a commodity. This commodity can be a piece of paper/ a coin /banking payment, debit, and credit cards. Money is not a creature, but its value keeps changing with society to society, country to country, and its economic conditions. For example, the value of one-Rupee in 1947 was not the same as one-rupee today, both in terms of its appearance and purchasing power.

The value of a country's currency is linked with the country's economic conditions and policies. Like any other currency, Indian Rupee is the fundamental reflection of the Indian economic system. To determine the exchange rate, the rupee valuation is done. The present paper is an effort to understand conceptually, the major forces which are major determinants for valuation of Indian Rupee for deciding the exchange rates.

Review of Literature

Sunil Kumar (2010) conducted a study on "Determinants of Real Exchange Rate in India: An autoregressive distributed lag (ARDL) Approach" and identified theoretically the determinants of real exchange rate in India using the statistical tool ARDL modelling approach and concluded that domestic factors are more responsible for defining the exchange rate and valuation of currency.

In their research paper, **CS Shylajan and Sreejesh S (2011)** examined the link between the Indian rupee-US dollar and macroeconomic fundamentals using a flexible-price monetary model. They examined the relationship between exchange rate and macroeconomic fundamentals. The outcome of their research showed that the exchange rate is related to macroeconomic forces in the long run.

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Yamini Karmarkar and Muskan Karamchandani (2012) conducted a study on "Exchange Rate and Macro-economic indicators: A Causal Study for India of the Past Decade," in which they identified and analyzed the critical macro-economic variables that have influenced the exchange rate of Rupee with respect to a Dollar in the post-liberalization era.

Objective

The present conceptual paper is designed with the objective to understand,

- The factors responsible for valuation of Rupee with respect to its counterpart currency USD, and
- To find out the remedial measures which can be adopted for maintaining the value of the Indian rupee base on these determinants.

Discussion

It is generally said that in economics, everything depends on demand and supply. The same concept applies to the valuation of the Rupee, which causes the depreciation and appreciation of the Rupee.

Rupee depreciation means that the Rupee has become relatively less worthy with respect to the dollar. It can also be interpreted as Rupee has lost some value against the dollar. If the Indian Rupee moves from Rs. 55 a dollar to Rs. 60 a dollar, then the Rupee is said to have depreciated.

Rupee appreciation means that the Rupee has become more valuable in comparison to the dollar. If the Indian Rupee moves from Rs. 60 a dollar to Rs. 55 a dollar, then the Rupee is said to have appreciated. It means that we can buy more dollars now with the same amount of rupees.

Some of the determinants, which impact the valuation of the Rupee, are discussed below.

- Rate of retail inflation (CPI) in India
- Real rate of interest in economy
- Seasonal dollar demand from importers and banks
- Balance of payments
- Government intervention
- Political stability and performance
- Recession
- Speculation

Rate of Retail Inflation (CPI) in India

Retail inflation means the increase in the price of certain products or commodities compared to a base price. In India, retail inflation is linked to the consumer price index (CPI). CPI measures changes in the price level of the market basket of consumer goods and services purchased by households. A CPI can be used to index (adjust for the effect of inflation) the real value of wages, salaries, pensions, for regulating prices, and for deflating monetary magnitudes to show changes in real values. The basic formula for calculating CPI is given below.

$$\text{CPI} = \frac{\text{Updated cost}}{\text{Base period cost}} \times 100$$

Many developing countries use changes in the CPI as their central measure of inflation. India also uses changes in the CPI to measure its rate of inflation.

Real Rate of Interest in Economy

A real interest rate is an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor. The real interest rate of an investment is calculated as the amount by which the nominal interest rate is higher than the inflation rate.

$$\text{Real interest rate} = \begin{matrix}\text{Nominal}\\ \text{interest rate}\end{matrix} - \begin{matrix}\text{Inflation (Expected}\\ \text{or Actual)}\end{matrix}$$

For example, an investor who set up a deal to earn a 6% interest rate for the coming financial year and anticipated a 2% rise in prices. In this case, the investor will expect to earn a real interest of 4%. Almost all investors have different expectations for future inflation trends.

There is a positive relationship between real interest rates and rupee value. Whenever Reserve Bank of India (RBI) hikes interest rates, the Rupee's value increases because the higher interest rates would have increased the real rate of interest proportionately. When interest rates are high, we generally see more inflows into debt from foreign portfolio investors (FPIs). As more dollars are flowing in, then it makes the Rupee stronger.

Seasonal Dollar Demand from Importers, Exporters, and Banks

The appreciation of the rupee makes exports more expensive and imports cheaper. Industries that are mainly based on imported material as their input, such as petroleum and petroleum products, drugs and pharmaceuticals, and engineering goods, will benefit from rupee's appreciation. They have to pay less for the imported material, which might increase their margins.

If the rupee is depreciating then, depreciating Rupee makes export cheaper and imports expensive, and it is good for industries like IT, hotels, and tourism, which generate their income mainly from exporting their products or services. The depreciation of the Indian Rupee makes Indian goods and services cheaper for overseas buyers, thus, leading to increases in demand and higher revenue generation. That is why foreign tourists would find it cost-effective to come to India, therefore, increasing the business of hotels, tours, and travel companies.

Balance of Payment (BoP)

There is a strong relationship between the balance of payments (BoP) and the valuation of the rupee. All economic transactions of a country are registered in the balance of payment account. If all these transactions done in an accounting period result in higher dollar earnings, the balance of payments may show a surplus mode, and it will appreciate the rupee. Similarly, if the transactions result in net dollar outflows (moving out of dollars from the country) means higher dollar debt than credit, the BoP will come under deficit mode, and the Rupee will be depreciated. The balance of payment account at one time shows the amount of foreign currency India is receiving and paying for settling down its payments and receipts. The difference between the total dollar receipts (through exports of goods, services, and foreign capital obtained) and payments (through imports of goods, services, and outflow of capital) shows how much net foreign currency India is getting.

Government Intervention

Reserve Bank of India (RBI), as the central bank of India, manages currency in India. The RBI also coordinates with the government in designing banknotes, including the security feature.

Whenever there is some variation in the Indian rupee valuation with respect to the dollar, the Indian government intervenes to control this by raising the foreign investment limits in debts. The government can also increase duties on non-essential imports, like electronics and appliances. It can attract money from the Indians staying abroad. The government can also announce additional fiscal and economic reforms in its annual budget to control the Indian rupee valuation.

Political Stability and Performance

A country's currency strength also depends on its political situation and economic performance. A country is preferred by foreign investors keeping the political situation in mind, with relation to political stability and less risk. An increase in the inflow of foreign capital, in turn, leads to an appreciation in the value of its domestic currency. A country with a good financial and trade policy does not give any room for not investing in the country, therefore, raising the value of the domestic currency. But if the situation is reversed due to political uncertainty, it may lead to depreciation of its currency.

Recession

A recession is when the economy declines significantly for at least six months. When a country experiences a recession, its interest rates begin to fall, decreasing its foreign capital acquisition chances. As a result of depreciation, its currency weakens compared to that of other countries, impacting the Rupee's valuation and, finally, the exchange rates.

Speculation

Speculation also plays an important role in valuation of the currency. If a country's currency value is speculated to rise, it will attract investors and investors to demand more of that currency to make a profit in the near future. Speculation sometimes might increase or decrease the trust in the currency.

Exchange Rate as an Indicator of Country's Economic Health

Exchange rates are among the top factors that distinguish the health of a country's economy. It is also known as the forex rate, which is the value of one nation's currency in relation to another nation's currency. With the help of exchange rates, any country can evaluate its key industries. Exchange rate fluctuations can impact the economy, industries, and, finally, investors. The valuation is important for many decisions taken by RBI and the government for managing the value of Rupee against US Dollars.

Fluctuating Value of Rupee and its Impact on Economy

Inflation directly enhances prices and thereby affects the purchasing power of the currency. Currency value and inflation have a direct correlation and impact each other.

- As a result of de-valuation, Indian stock markets will face new threats.
- The investors are bound to suffer as there is always a positive correlation between stock index and corporate results.
- The Rupee's slither may continue due to the decline in foreign exchange inflows and swelling outflows.
- The numbers of Indian scams also have distracted the government's concentration away from the economy. These scams make a bad image of India in the global market.

Practices as Applicable for Increasing Value of Indian Rupee against US Dollar

- Attracting foreign institutional investors to invest in India; when these investors bring their dollars to India, they need to convert these Dollars into Rupees to buy the stocks in India.
- Making the government bonds available to non-resident investors might help attract dollars.
- Start believing in make-in-India (*swadeshi*) concept and purchasing the made in India products.
- India's import basket majorly consists of oil, gold, electronics, and machinery products. We should understand this and try to restrict the usage of products as mentioned above.
- Promoting export of Indian goods in the foreign market.
- We need to accelerate the reform process that would make the economy resistant to external shocks and changes in economic cycles and currency fluctuations.
- The bottom line is our policy should concentrate on enhancing our capability in manufacturing, promote entrepreneurship, and provide an incentive for innovations.

Conclusion

From the above discussion, it can be concluded that,

- The value of the Indian rupee is a combination of multiple factors. Domestic factors play a key role in determining the value of rupees along with others and are more controllable to increase its value. It also depends on what is happening outside the country, which is not in the control of India's government and central bank.
- Keeping an eye over each of the above discussed factors may determine the future trend of rupee's valuation.
- We need to remember that the challenge we are facing is about currency risk and moving to growth and development.

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