

Driving Forces Which Influence Exchange Rates in the Global Market

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Abstract

The foreign exchange market is a market where foreign currencies are bought and sold. If an Indian importer imports goods from the USA and has to make payments in US dollars, it will approach the foreign exchange market to buy US dollars for rupees. An exchange rate is simply a price of one nation's currency in terms of another currency. An exchange rate is determined by the supply and demand factor. There are various factors which determined the demand and supply of a company, such as economy foreign trade and the activities of international investors, cash flows, given their size and mobility. Currencies are very sensitive to change or anticipated change in interest rate and to foreign risk factor. Key drive that affects the exchange rate includes: interest rate differentiate net expected inflation, trading activities in other currencies, international capital and trade flows, international institutional and investors sentiment, financial and political stability, monetary policy and central bank, domestic debt level, economic fundamental.

A currency will tend to become more variable whenever demand for it is greater than available supply. Increase demand for a currency is due to either an increased transaction demand for money or an increased speculative demand for money.

Keywords: Foreign exchange, Demand, Supply, Currency, Trade, Money

Introduction

Currencies are bought and sold in exchange for one another in a 24-hour over-the-telephone market by individuals, companies, securities firms, and central banks, all of which deal with the foreign-exchange traders at commercial banks. The liquidity of market stems from the readiness of such banks to trade with other banks as well as with non-banks. Probably over 95% of trading occurs between the banks themselves, as they continuously adjust and readjust their positions, Foreign-exchange traders must anticipate changes in government actions by buying and selling currencies for future(forward) or immediate(spot) delivery. The market rates that companies face in doing international business change each time with news or expectations of future events alter the outlook for a currency.

Changes in net foreign-exchange positions arise continuously as banks deal with their corporate clients. In order to accommodate those customers effectively without holding large inventories, banks rely on the interbank market. Indeed, interbank trading for most major banks accounts for 90 percent or more of total transactions volume. This phenomenon comes about

because of liquidity and performance requirements. Only a bank that is active in the interbank market can buy and sell foreign exchange in substantial amounts- that is, adjust its positions quickly by having ready access to many counterparties. Furthermore, profitable foreign-exchange trading requires the acquisitions of timely and relevant information.

The foreign-exchange market moves with the sun. Technically, the trading day starts in Tokyo, although traders there will be in touch early in the morning with their colleagues on the West Coast of the United States to obtain closing prices and information regarding market conditions. Thus, foreign-exchange rates are continually changing; the market never sleeps.

Understanding a currency's movements involves fundamental economic analysis, political prognostication, and technical analysis that studies the patterns of movements in the currency itself. Modern finance theory, on the other hand, regards these efforts as self-defeating – any method that works will become disseminated and used to the point where it no longer works. The market will respond more and more rapidly to new information, and in time an efficient market will prevail; exchange rates will behave as randomly as the arrival of unanticipated information.

Not all currencies behave this way, of course. Some are fixed to other currencies, as the German mark is fixed to the Dutch-guilder. Some governments fix or influence their currencies' values by either open-market buying or selling, pushing the price up or down. Others control supply and demand by placing restrictions on who can buy or sell foreign exchange, and for what purpose. Some currencies, such as the pound and the yen, are traded for deferred settlement-forward delivery- in one month or more- as well as the more normal spot delivery- settlement within two business days. Thus a corporation can purchase Japanese yen for delivery not today but, say, in three months' time. This technique commonly used to protect the value of foreign currency payments is called a forward foreign-exchange contract. It also provides a linkage among the different Eurocurrency markets.

Driving forces which influence exchange rate

Flow of funds on the current and capital accounts

A country with current account deficit experiences a depreciation of the currency. It is because there is demand for foreign currency to make payment for imports. On the contrary, a current account surplus country possesses a large supply of foreign exchange with the result that the country experiences an appreciation of its currency. An example of current account deficit country is the USA whose trade deficit was one of the important causes for depreciation in dollar during the post-2002 years. On the other hand, the currency of Japan and Switzerland appreciated in view of surplus current account. Capital account flows help change the situation. Larger inflow on the capital account leads to an appreciation of the currency. Here, Indian case can be taken. Rupee appreciated in 2007 because of large inflow of foreign investment and depreciated when FIIs' net disinvestment was large during 2008. There are countries, such as

Australia, Britain, Iceland and New Zealand that experienced greater appreciation in their currency in the first half of 2008 even after having large deficits on their current account relatively to Japan and Switzerland that witnessed surpluses on their current account and, at the same time, smaller appreciation in their currency. In fact, this paradox is the result of carry trade that explains why trade flows are dwarfed by capital flows on account of interest rate differential.

Impact of inflation

It is normally the inflation rate differential between the two countries that influence the exchange rate between the two currencies. The influence of inflation rate can be best explained by Purchasing Power Parity theory (PPP). This theory suggests that at any given time, the rate of exchange between two currencies is determined by their purchasing power. If e is the exchange rate and P_A and P_B are the purchasing power of two currencies, A and B, the equation can be written as: $e = P_A/P_B$

A country experiencing higher inflation will experience a corresponding depreciation of its currency, while a country with a lower inflation rate will experience an appreciation in the value of its currency.

Inflation-adjusted rate is known as the real exchange rate. This means that if the real exchange rate is constant, currency gains or losses from nominal exchange rate changes will be offset by the difference in relative rates of inflation. Sometimes when a government sticks to a particular exchange rate without caring for prevailing inflation, a gap emerges between the real and the nominal exchange rates which results in lowering of export competitiveness and in turn, the trade deficit. This is why; this theory suggests that a country with high rate of inflation should devalue its currency relative to the currency of the countries with lower inflation rates.

Interest Rate

The flexible price version of the monetary theory explains that any rise in domestic interest rate lowers the demand for money, and the lower demand for money in relation to the supply of money causes depreciation in the value of domestic currency. A rise in interest rate increases the supply of loan able funds which leads to greater supply of money and a depreciation in domestic currency. A higher interest rate at home than in a foreign country attracts capital from abroad in lure of higher return and the inflow of foreign currency results in increase of the supply of foreign currency and raises the value of domestic currency.

The concept of real interest rate applies to all investment- domestic and foreign. An investor invests in a foreign country if the real interest rate differential is likely to be in his favor, but when such a differential exists, arbitrage begins in the form of international capital flow that ultimately equals the real interest rate across countries.

Irwin Fisher has divided the nominal interest into two parts – the real interest rate and the expected rate of inflation, and the relationship between these two is Fisher Effect. Fisher Effect explains that nominal interest rate is the amalgamation of real interest rate and inflation rate.

The Fisher effect states that whenever an investor thinks of an investment, he is interested in a particular nominal interest rate which covers both the expected inflation and the required real interest rate.

Combined effect of interest rate and inflation

In this Fisher's open proposition is there, that is, International Fisher Effect. It is a combination of the PPP theory and Fisher's closed proposition. International Fisher Effect suggests that interest rate differential is equal to the inflation rate differential.

The rationale behind this proposition is that an investor likes to hold assets denominated in currencies expected to depreciate only when the interest rate on those assets is high enough to compensate the loss on account of depreciating exchange rate. As a corollary, an investor holds assets denominated in currencies expected to appreciate even at a lower rate of interest because the expected capital gain on account of exchange rate appreciation will make up the loss on yield on account of low interest.

The equality between interest rate differential and inflation rate differential can be explained with the following example. Suppose, India is expecting 8 per cent inflation rate during the next one year as compared to 3 percent inflation rate in the USA. If the exchange rate in the beginning of the year is Rs.40/US \$, the value of the rupee will fall vis-à-vis the US dollar at the end of the period to:

$$\text{Rs. } 40(1.08/1.03) = \text{Rs. } 41.94/\text{US } \$$$

Suppose further that at the beginning of the period, interest rate in India is 7 per cent as against 4 per cent in the USA. At the end of the period, interest rate in India will rise to an extent that will equate approximately the inflation rate differential. In order to find out the change in interest rate, the following equation may be applied:

$$e_t/e_0 = 1 + r_{\text{IND}}/1 + r_{\text{USA}}$$

Base upon the equation, it would be

$$41.94/40 = (1 + r_{\text{IND}})/1.04$$

$$1 + r_{\text{IND}} = 1.09$$

$$R_{\text{IND}} = 0.09 \text{ or } 9\%$$

If the rate of interest in India rises to 9 per cent, the interest rate differential between the two countries will be: 1.09/1.04 or 4.81 per cent which will be approximately equal to the inflation rate differential which is 1.08/1.03 or 4.85 per cent.

Intervention by monetary authorities

When the market forces do not influence the exchange rate in the country's' favor, then its monetary authorities intervene in the foreign exchange market through buying and selling of foreign currency and influence the exchange rate.

Intervention helps move the value of domestic currency up or down also through the expectations channel. When the monetary authorities begin supporting the foreign currency, speculators begin buying it forward in the expectation that it will appreciate. Its demand rises and in turn, its value appreciates vis-à-vis the domestic currency. Intervention may be stabilizing or destabilizing. Stabilizing intervention helps move the exchange rate towards equilibrium, while destabilizing intervention is found in cases where rates are moving away from the equilibrium despite intervention. The former causes gain of foreign exchange, while the latter causes loss of foreign exchange.

Again, intervention may be sterilized or non-sterilized. Non-sterilized intervention is when the monetary authorities purchase foreign currency with the help of created money, the money supply in the country increases. It leads to inflation. But if simultaneously, securities are sold in the market to mop up the excess supply of money, intervention does not lead to inflation. It takes the form of sterilized intervention. Finally, the intervention may be a coordinated one where central banks of two or more countries are simultaneously involved in stabilizing a particular currency.

Economic factors

Economic factors include the economic behavior of the country and the economic data. Revenues are the key defining mechanism that would tell you how stable the country rate is going to be. The larger the revenues are brought in the more likely it is that the country will enjoy a stable rate performance. The economic standing of the country makes or breaks its currency because there can be a budget surplus if there are no deficits. As such outgoing currencies will not be too hard and limited and therefore its value may be able to compete and risk in the midst of the foreign exchange market. Economic data like labor report, consumer price index (CPI), Gross domestic product (GDP), international trade, productivity, industrial production, consumer confidence etc affect the exchange rate fluctuations.

Political factors

All exchange rates are susceptible to political instability and anticipation about the new ruling party. A threat of coalition government in France, India, Germany or Italy will certainly

affect the exchange rate. For example, political and financial instability in Russia is also a red flag for EUR/USD, because of the substantial amount of Germany investment directed to Russia.

Political situation in a particular country can command the flow of the current foreign exchange market ground and affect the foreign exchange rate. When political instability happens, chances are traders will opt to be at the back seat to watch things unfold. This is necessary action because they wanted to avoid making uncalculated risks by investing in imports which might eventually turn on down note. Traders have a way of studying their foreign exchange market before they choose to finally plunge in.

We will illustrate how political factors influence exchange rates with some actual examples. At the end of 1987, the US Dollar was suffering from continuous depreciation. In order to stabilize the US Dollar, the G7 Finance Ministers and central bank governors released a joint statement on 23 December 1987 announcing plans for a large-scale intervention in the foreign exchange market. On 4 January 1988, the group started to dump Japanese Yen and Deutsche Mark in huge volumes while buying US Dollars. This resulted in a rebound of the US Dollar and maintained its exchange rate at a stable level in the global market.

For our second example, if you have been observing the Euro, you would have noticed that for three consecutive months during the Kosovo War, the Euro fell by about 10% against the US Dollar. One of the reasons was the downward pressure on the Euro caused by the Kosovo War.

Balance of payments

Balance of payments greatly affects the exchange rates determination. The balance of payments can highlight pressures for devaluation or revaluation, reflected large and systematic trend of foreign currency reserve at the central bank. Then the external value of the domestic currency goes up, import became cheaper and exports dearer. Thus exports are encouraged and imports are discouraged leading to disequilibrium in balance of payment.

If the price of a country's exports rises by a greater rate than that of its imports, its terms of trade have favorably improved. Increasing terms of trade shows greater demand for the country's exports. This, in turn, results in rising revenues from exports, which provides increased demand for the country's currency (and an increase in the currency's value). If the price of exports rises by a smaller rate than that of its imports, the currency's value will decrease in relation to its trading partners.

Conversation rate can also be affected by the level of imports done vs. export. The more a country exports as compare to level of its imports, the more likely it is that there will be budget surplus which will increase the rates of their currency in the market.

An economic transaction, such as export, or capital transaction, such as inflow of foreign investment, will result in foreign revenue. Since foreign currencies are normally not allowed to

circulate in the domestic market, there is a need to exchange these currencies into the domestic currency before circulation. This in turn creates a supply of foreign currencies in the foreign exchange market. On the other hand, an economic transaction, such as import, or capital transaction, such as outflow of investment to a foreign country, will result in foreign payments. In order to meet a country's economic needs, it is necessary to convert the domestic currency into foreign currencies. This creates a demand for foreign currencies in the foreign exchange market. When all these transactions are consolidated into a table of international balance of payments, this would become the country's foreign exchange balance of payments. If the foreign revenue is larger than payment, there will be a larger supply of foreign currencies. If the foreign payment is larger than revenue, then the demand for foreign currencies will be higher. When the supply of a foreign currency increases but its demand remains constant, it will directly drive the price of that foreign currency down and increase the value of the domestic currency. On the other hand, when the demand for a foreign currency increases but its supply remains constant, it will drive the price of the foreign currency up and decrease the value of the domestic currency.

Change in competitiveness

If the goods of a particular country become more attractive and competitive this will also cause the value of the exchange rate to rise. This is important for determining the long run value of the particular currency.

For example, if British goods become more attractive and competitive this will also cause the value of the exchange rate to rise. This is important for determining the long run value of the pound.

Speculation

If the speculator believes that a particular currency will rise in the future, they will demand more now to be able to make a profit. This increase in demand will cause the value to rise. Therefore, movement in the exchange rate does not always reflect by economic fundamentals, but are often driven by the sentiment of financial markets.

For example, if markets see news which makes an interest rate increase more likely, the value of the particular currency will probably rise in anticipation. For example, after World War II, the United States enjoyed a period of political stability, well-managed economy, low inflation rate and an average annual economic growth of about 5% in the early 1960s. At that time, all the other countries in the world were willing to use US Dollar as the mode of payment to safeguard their wealth. This causes a continuous rise in value of the US Dollar. However, from the end of 1960s to early 1970s, the Vietnam War, Watergate scandal, serious inflation, increased tax burden, trade deficit and declining economic growth caused the US Dollar to plunge in value.

Productivity of an economy

An increase in productivity of an economy tends to impact exchange rates. Its effects are more prominent if the increase is in the traded sector. A recent study by the Federal Reserve Bank of New York shows that over thirty years, productivity changes and the Dollar/Euro exchange rate have moved in tandem.

Stock market

The major stock indices also have a correlation with the currency rate. The Dow is the most influential index on the dollar. Since the mid-1990s, the index has shown a strong positive correlation with the dollar as foreign investors purchased US equities. There are major forces that affect the indices such as: Corporate earnings, Interest rate expectation, Global considerations.

Public Debt

Countries will engage in large-scale deficit financing to pay for public sector projects and governmental funding. While such activity stimulates the domestic economy, nations with large public deficits and debts are less attractive to foreign investors. Its reason is a large debt encourages inflation, and if inflation is high, the debt will be serviced and ultimately paid off with cheaper real dollars in the future.

In the worst case scenario, a government may print money to pay part of a large debt, but increasing the money supply inevitably causes inflation. Moreover, if a government is not able to service its deficit through domestic means (selling domestic bonds, increasing the money supply), then it must increase the supply of securities for sale to foreigners, thereby lowering their prices. Finally, a large debt may prove worrisome to foreigners if they believe the country risks defaulting on its obligations. Foreigners will be less willing to own securities denominated in that currency if the risk of default is great. For this reason, the country's debt rating (as determined by Moody's or Standard & Poor's, for example) is a crucial determinant of its exchange rate.

Monetary Policy

When a central bank believes that intervention in the foreign exchange market is effective and the results would be consistent with the government's monetary policy, it will participate in foreign exchange trading and influence the exchange rates. A central bank generally participates by buying or selling the domestic currency so as to stabilize it at a level that it deems realistic and ideal. Judgment on the possible impact of government's monetary policy and prediction on future policy by other market players will affect the exchange rates as well.

Market Judgments

The foreign exchange market does not always follow a logical pattern of change. Exchange rates are also influenced by intangible factors such as emotions, judgments as well as analysis and comprehension of political and economic events. Market operators must be able to interpret reports and data such as balance of payments, inflation indicators and economic growth rates accurately.

In reality, before these reports and data become available to the public, the market would have already made its own predictions and judgments, and these will be reflected in the prices. In the event that the actual reports and data deviate too much from the predictions and judgments of the market, huge fluctuations in exchange rates will occur. Accurate interpretation of reports and data alone is not adequate; a good foreign exchange trader must also be able to determine market reactions before the information becomes publicly available.

Participants' psyche and Bandwagon effect

When a speculator being dominant in the foreign exchange market expects a drop in the value of a particular currency, he begins selling it forward. The other speculators follow the lead. Ultimately, the currency depreciates even if the inflation and interest rates are in a position to push up the value of the currency. In fact, this factor played a crucial role in the depreciation of British Pound in 1992 and of Rupee during the closing months of 1997.

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