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Impact of Exchange Rate Fluctuations:
Options for SMEs

- Fall of Dollar and Rise of Rupee
- Impact on SME Exporters and Importers
- Options for SMEs

Introduction

The recent sharp appreciation of the Rupee versus the US Dollar and other foreign currencies came as a surprise to most enterprises, whether large or small. Even though the signs were there that the Rupee would appreciate, few firms read those signs and even fewer were prepared for the impact of that appreciation.

Part of the reason for this has been that in recent years, the Rupee has been reasonably stable, largely the result of Reserve Bank of India (RBI) policy and intervention. As a result, most firms took it for granted that the status quo would be maintained. In addition currency fluctuations were viewed as an external macroeconomic factor and hence something that a firm couldn't prepare for.

If anything, recent events have shown us that exchange rates aren't figures carved in stone and that these fluctuations have impacts, benign or malign depending on the nature of the stakeholder.

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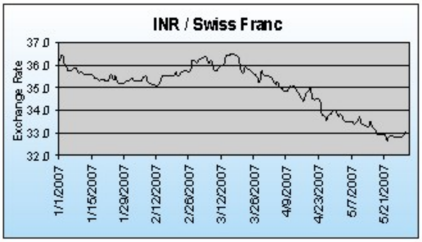
Furthermore while it is very difficult to predict exchange rate movements, it is comparatively easier to prepare for adverse fluctuations.

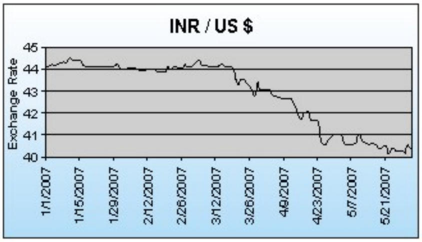
In this paper we will seek to understand the impact of exchange rate fluctuations on SMEs in India and suggest ways to mitigate this impact

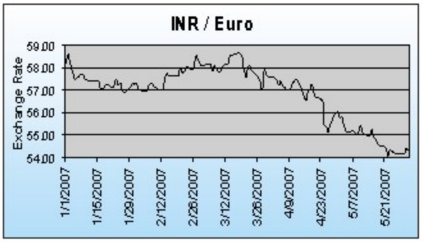
Rupee vis-à-vis Major Currencies

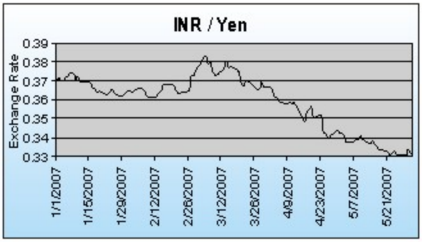
Since 1 January, 2007 it is clear that the Rupee has appreciated against almost all major international currencies.

Fluctuation of the INR vis-à-vis major international currencies since 1 Jan, 2007







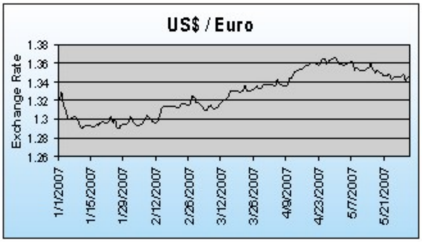


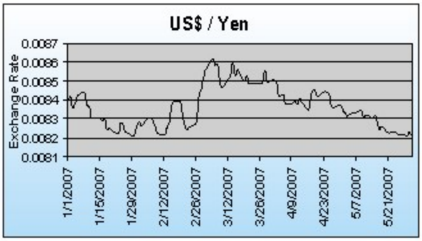
What is less obvious is that in percentage terms the Rupee has appreciated less against the Euro as compared to the US Dollar/Swiss Franc. The Rupee appreciated the most against the Japanese Yen.

Change in Rupees v/s	Jan 1st-May 31st	May 1st-May 31st
Swiss Franc	8.9%	2.4%
US Dollar	8.5%	1.6%
Euro	6.7%	2.6%
Japanese Yen	10.6%	3.2%

This is because during this period, the US Dollar has depreciated against the Yen and appreciated against the Japanese Yen.

Fluctuation of the US$ vis-à-vis the Euro & the Yen since 1 Jan' 2007





Based on this, the two things that stand out are:-

- A firm should consider the impact of fluctuations *in the currencies to which it is exposed*
- Diversification of risk across currencies is beneficial *as different currencies move differently*

Impact on SMEs

Fluctuations in exchange rates affect different stakeholders differently. In general when the Rupee appreciates, importers benefit and exporters are adversely impacted and vice versa. However the impact varies from sector to sector. Furthermore the ability of different sectors to withstand adverse effects is different. As the IT sector has higher margins than the handicrafts sector, an IT company has a greater capacity to withstand the adverse impact of the appreciation of the Rupee.

Impact of the appreciation of the Rupee on various sectors

Industry	% of Imported Content	% of Exports	Impact
Leather	Low	High	Adverse
Refineries	High	Low	Beneficial
Auto	Medium	Low	Beneficial
Engineering	Medium	Low	Beneficial
Airlines	High	Low	Beneficial
Gems & Jewellry	High	High	Neutral
IT	Low	High	Adverse
Handicrafts	Low	High	Adverse

Impact on Exporters: Currency fluctuations impact exporters significantly. Currency appreciation adversely impacts exporters while currency depreciation benefits exporters. The current sharp appreciation in INR vis-à-vis USD has adversely impacted exporters. This sharp appreciation has increased the dollar price of Indian goods in the global market.

Assuming that a basket of Indian goods was selling at USD 1,000 in international markets at the beginning of this year, it means that a price of those goods in Indian currency was INR 44,100. Even if prices have not increased in India the same basket will now sell at USD 1,088[1] i.e. the importers will have to shell out 8.8% extra, which makes Indian goods more expensive and consequently less competitive.

Impact on Importers: Currency appreciation or depreciation impacts importers as well. Currency appreciation impacts the importers favorably as it reduces the cost of imported goods. Currency depreciation works negatively for importers.

Any SME planning to import a machine worth USD 10,000 today from the USA will have to pay INR 40,500 at the current exchange rate instead of INR 44,000 which it had to pay at the beginning of the year. Though the above scenario looks favorable for importers, one must appreciate that it impacts the overall planning for the importers. If the INR would have depreciated significantly it would have become difficult for importers to buy the machine.

Impact on Borrowers: Increasingly Indian firms are availing of loans in foreign currencies as these loans are cheaper than Rupee loans. However, when taking a foreign currency loan there is a risk related to exchange rate fluctuations. If an Indian firm borrows USD 1 million, then today this converts to INR 40.5 million. When repayment is due, if the INR/USD exchange rate is 45 rupees to the dollar, then the Indian firm must repay INR 45 million.

[1] =44,100 divided by 40.5

How market forces affect exchange rate movements

Similar to any other goods or services the exchange rates are also driven by the demand-supply principle i.e. if the demand of any goods is more than its supply, the price would increase and vice versa. The USD/INR exchange rate is nothing but the price of dollar in terms of INR. If the demand for INR increases vis-à-vis its supply the exchange rate will move up. If the supply of INR increases vis-à-vis its demand the exchange rate will go down.

Some of the important factors affecting the demand and supply of any currency are:[2]

- **Interest Rate Parity:** If capital is allowed to flow freely, exchange rates become stable at a point where equality of *real interest rate* is established. The real interest rate is the nominal interest rate adjusted for the prevailing inflation rate in the country.
- **Law of One Price:** In an ideal situation the same goods should sell at the same price anywhere in the world (net of costs arising out of barriers to free trade). This implies that either the price of goods or the exchange rate should adjust so that one price remains the same everywhere.
- **Macro-economic Environment:** A positive macro-economic environment like government policy, competitive advantages etc. increases the demand for a currency. Economic data such as consumer price indices (CPI), producer price indices (PPI), gross domestic product (GDP), international trade, productivity, industrial production also affect fluctuations in currency exchange rates.
- **Stock market:** The major stock indices also have a correlation with the currency rates. The demand for the equity of a country gives rise to demand for the currency of that country.
- **Political factors:** All exchange rates are susceptible to political instability and anticipations about the new government.

The evidence of recent times makes it clear that it is difficult to predict the value of the INR vis-à-vis other currencies. Currency fluctuations can adversely impact SMEs. As a result it is very important from the SMEs perspective to manage their foreign exchange risk efficiently and effectively.

In order to manage its foreign exchange risk an SME should:-

- Determine Risk Exposure: The SME determines the foreign exchange risk they are exposed to
- Determine Risk Mitigation Strategy: The SME determines whether and to what extent they want to reduce/eliminate this risk
- Determine Risk Mitigation Tools: Select the correct instrument/method of reducing risk

Determine Risk Exposure: These factors will help determine the foreign exchange risk an SME is exposed to.[3]

- What percentage of your sales or purchases (especially

[2] http://www.easy-forex.com/en/forex.dollareuro.aspx

[3] managing Foreign Exchange Rick: Desjardins Caisse centrale

receivables and payables) are in foreign currencies?

- Are you in a price competitive market where you cannot pass on currency losses to customers by increasing prices?
- Can you enter into price variance clauses with your customers based on exchange fluctuations?
- Is your cash flow position tight, such that an adverse currency fluctuation can cause problems?
- At what point will a change in exchange rates affect your profitability significantly?
- To which currencies are you exposed to?

Determine Risk Mitigation Strategy: Based on the quanta of foreign exchange risk the SME is exposed to, it can choose one of these strategies:-

i) No Hedging: No hedging implies that the SME can accept the foreign exchange risk and it need not plan for it. Hedging is not necessary when either an SME transacts only an insignificant part of its total business in foreign currency or when an SME can completely pass on the benefit or loss arising from the foreign currency transactions to the customers.

ii) Selective Hedging: Selective hedging implies that the SME will hedge only a part of its total foreign exchange exposure. SMEs can choose this strategy when they have *significant but short-term* exposure to foreign currency and when the SMEs are expecting a favorable movement in the exchange rate. In such a scenario SMEs can decide to hedge 50% to 60% of their total exposure and can take benefit or loss from the unhedged position.

iii) Systematic Hedging: Systematic hedging implies that the SMEs hedge their foreign exchange risk as soon as they enter into any foreign currency commitment.

As a general rule the more an SME relies on its foreign exchange cash flow in its business, the more it should hedge against foreign exchange risk.

Determine Risk Mitigation Tools: An SME can choose from any of these options to hedge themselves against currency risk:-

i. Currency Diversification
ii. Forward Contracts
iii. Swaps
iv. Call and Put Options

Currency Diversification: SMEs can reduce exchange risk relative to a particular currency by diversifying the currency base. SMEs can reduce their dependence on USD/INR exchange rate by accepting orders in other currencies such as Euro, Yen etc. The greater the number of currencies the SME is exposed to, the lower the risk.

Forward Contracts: *The foreign exchange forward contract is an agreement to convert a given amount of one currency into another at a pre-determined exchange rate and date.* If the SME is supposed to make a payment of USD 10,000 after three months then it can enter into a forward contract to purchase USD 10,000 after three months at a price which can be fixed today.

The forward contract is the preferred instrument for hedging against foreign exchange risk. However it does not allow one to benefit from a favorable exchange rate movement.

Swaps: The **swap** involves simultaneous spot and period transactions of one currency against another. It is typically used when a firm has receivables and payables in the same currency, but whose due dates are not matched.

Call and Put Options: Forward contracts and swaps mitigate risks but do not allow you to benefit from a favorable movement in exchange rates. Call and Put options can be thought of as an insurance policy. It allows the SME to profit when exchange rates shift in its favor and also protect it when the opposite happens. For Call and Put option the SME must pay a premium, much like in an insurance policy.

- **Call option:** The Call option gives the SME the right but not the obligation *to buy* currencies at a predetermined date and rate. An importers can buy a Call option and freeze the "buying" price for the foreign currency and remove foreign exchange fluctuation risk from the decision-making process.
- **Put option:** The Put option gives the SME the right but not the obligation *to sell* currencies at a predetermined date and rate. An exporter can buy a Put option and freeze the "selling" price for the foreign currency and remove foreign exchange fluctuation risk.

In addition there are various modified versions of these risk mitigation tools which have uses in more specialized cases.

Conclusion

Exchange rate fluctuations can adversely impact SMEs. Each SME should determine how much exposure it has to foreign currency risk. If the risk is significant then it should hedge to the extent required. The tools/methods which can reduce risk include currency diversification, use of forward contracts, swaps and call/put options.

Recent Developments

i. RBI Policy: The Annual Policy Statement for the Year 2007-08 of the Reserve Bank of India has further liberalized foreign exchange transactions. Two points of specific interest to SMEs are:-

- Authorized banks can allow domestic producers/users to hedge their price risk on aluminium, copper, lead, nickel and zinc in international commodity exchanges, based on their underlying economic exposures
- In order to enable SMEs to hedge their foreign exchange exposures, it is proposed to permit them to book forward contracts without underlying exposures or past records of exports and imports. The SMEs are also permitted to freely cancel and rebook the contracts.

ii. Exchange based trade in Rupee futures: Since June 2007 the Dubai Gold and Commodities Exchange (DGCX) has become the first exchange to allow trade in Rupee futures. Other exchanges are also likely to follow suit. This development is likely to make it easier for firms to trade in Rupee futures as well as result in more transparent and potentially lower pricing. For more information please visit http://www.dgcx.ae/.

Solutions offered by Indian Banks and Financial Institutions

Over the counter contracts: Most of the Public and Private sector banks provide currency hedging products to Indian companies. To know more about such products please visit your local bank's branch.

New generation private sector banks are more aggressive on this front and some of them have started developing products suitable for SME segment. **C**enturion Bank of Punjab* for example provides a wide range of Treasury services to large and small enterprises, financial institutions as well as retail or individual clients. Some of the specialized products are:

a. Interest Rate Product - Principal Only Swap (POS)

- A POS can be used to change a liability (borrowing) from a higher interest bearing currency to a lower interest bearing currency. For example a customer has a 370 day term loan in Rupees at, say, an interest rate of 12% p.a. The bank can offer to swap this borrowing into Swiss Francs, which bears an interest rate of say 1%. In this case the customer swaps his liability into Swiss Franc at a notional Swiss Franc/Rupee exchange rate, via a derivative or off balance sheet transaction. Thus the interest cost saving is 11% while the original Rupee loan is left unchanged. Now clearly by swapping into Swiss Francs the customer has assumed foreign exchange risk. To keep this risk completely open is not advisable. Therefore, some exchange rate risk protection is embedded into the POS. This protection costs about 9%. Thus the customer is able to achieve a net saving in interest cost of about 2%.
- Of course the exchange rate risk cannot be covered completely, although it is mitigated to a large extent. Some residual risk remains, but at a level which should not ordinarily be seen during the tenure of the POS.

b. Exchange Rate Product - Forward Booster

- A Forward Booster is an option contract whereby an exporter/importer enters into an option contract to transact at exchange rates which are better than the current forward rates. From an exporter perspective this is how the transaction might proceed. An exporter is due to realize his export proceeds of USD 1million after 6 months. At present US Dollar/Rupee spot exchange rate is say Rupees 41.00/ USD, and the exchange rate for six months forward is Rupees 41.30/USD. If the exporter enters in a forward contract he is locked in to an exchange rate of Rupees 41.30/USD. If the US Dollar strengthens over 41.30 the exporter has an opportunity loss. The exporter could instead enter into a Forward Booster contract with the Bank as follows:

  i. Exporter buys a USD put option (exporters right to sell USD) @ 41.40 for USD 0.50 million.

  ii. Exporter simultaneously sells a USD call option (exporters obligation to sell USD) @ 41.40 for USD 1 million.

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iii. On maturity, if the exchange rate is less than 41.40, the exporter has the right to sell USD 0.5 million at 41.40. He can sell the balance of the USD 0.5 million of his export receivable at the market rate.

iv. On maturity if the exchange rate is above 41.40, under the forward contract the exporter would have been locked in to sell at 41.30, whereas under the Forward Booster he sells his entire export receivable at 41.40, a clear advantage over the forward contract.

Definitions

Spot and Forward Exchange Rates:

The Spot Exchange rate is the market value of one currency in terms of other currency *at this moment*, while the Forward exchange rate is the value of one currency in terms of other *at sometime in the future*. The forward exchange rate refers to an exchange rate that is quoted and traded today but for delivery and payment on a specific future date.

If currently the rupee is trading at 40.5 for each dollar, then the spot exchange rate of the rupee vis-à-vis dollar is 40.5. However, if the rupee is trading at 41.25 today for delivery after one month then the one-month forward exchange rate of the rupee vis-à-vis the dollar is 41.25.

Currency Appreciation and Depreciation:

Currency appreciation implies that the value of one currency is increasing vis-à-vis other currency. If USD/INR exchange rate changes from 41.0 to 40.5 it implies that INR is appreciating vis-à-vis USD while USD is depreciating vis-à-vis INR.

Hedging:

Hedging is defined as the process of taking an equal but opposite position with a third party to neutralize the risk associated. Hedging is a no profit, no loss proposition. It is similar to insurance where you pay a premium to cover yourself for risk in the future.

FISME Policy Papers: Trade Issue Series

Indian economy is increasingly getting integrated with global economy. The process is resulting in a whole new set of opportunities and challenges for SMEs. The Trade Issue Series of FISME Policy papers is an attempt to look at emerging Trade issues from the perspective of SMEs to induce a more informed debate in SME space. The current series is being assisted by project 'Strategies and Preparedness for Trade and Globalization in India, supported by UNCTAD (India), Ministry of Commerce and Industry and DFID. FISME is the Tier-I partner for SME component of the project.

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