



# INTERNATIONAL RESEARCH JOURNAL OF MULTIDISCIPLINARY STUDIES

Vol. 2, Issue 10, October, 2016

ISSN (Online): 2454-8499

Impact Factor: 1.3599(GIF),  
0.679(IIFS)

---

---

## TO STUDY THE IMPLICATIONS OF CURRENCY FUTURE AS A HEDGING TOOL

---

---

<sup>1</sup>Dr. E. B. Khedkar, <sup>2</sup>Ms. Prajakta M. Mahure

<sup>1</sup>Dean Of Savitribai Phule University of Pune, Vice Chancellor of Ajeenkya Dr. D. Y. Patil University Pune, Director of Dr. D. Y. Patil School of Management & MCA Pune

<sup>2</sup>Phd student, Sinhgad Institute of Management, Vadgaon Budruk, Off Sinhgad road, Pune, Business Analyst Team Lead at Accenture India Pvt Ltd, Magarpatta City (SEZ), Hadapsar-Mundhwa road, Pune

---

### Abstract

*India started its structural foreign exchange reforms way back in the 90's and Globally, operations in the foreign exchange market started in a major way after the breakdown of the Bretton Woods system in 1971, which also marked the beginning of floating exchange rate regimes in several countries. Over the years, the foreign exchange market has emerged as the largest market in the world. The decade of the 1990s witnessed a perceptible policy shift in many emerging markets towards reorientation of their financial markets in terms of new products and instruments, development of institutional and market infrastructure and realignment of regulatory structure consistent with the liberalized operational framework. The changing contours gradually shifted to a managed floating system with RBI intervention. Currently there is an active OTC market with Spot and Forward trades in big quantities. The participants for such trades range from banks to international traders with underlying currency risks. Such as crude market has a daily volume of around USD 33 billion, throwing open enormous opportunities. The impact of exchange rate volatility on domestic aggregates can be minimized with the help of hedging strategies in Currency Futures. Considered 2 cases for study. How exchange rate trends impact particular business.*

**Key words:** Currency future, Hedging, Foreign exchange, Exchange rate, OTC trade

---

### Introduction

The advent of global trade and integration of financial markets, backed with progressive flow of capital, have transformed the dynamics of Indian financial markets. With a view to enable entities to manage volatility in the currency market, RBI has approved Foreign Exchange Currency Futures on the exchange platform. Currency Derivatives help players manage foreign currency risk, better.

The launch of currency futures in August 08, 2010 has been, in my view, a great step forward in the liberalization of the Indian economy. For the first time, an Indian entity can bet on the external value of the rupee, whether or not it has an underlying foreign

exchange exposure. This, in fact, is capital account convertibility, and the RBI is to be congratulated on taking this step.

Of course, there are huge constraints on the step so that while, in principle, it is a great leap forward, in actual application, it is considerably smaller than that. Indeed, the volume of trading in the first few days although quite impressive as compared to start-up futures contracts anywhere in the world has barely crossed \$ 50 million on a single day, a drop in the ocean compared to even our own OTC market.

Of course, futures volumes are unlikely to ever be much more than a bucket in the ocean in the global market, for instance, currency futures trades constitute just about

2-3 per cent of the OTC market. So, while I applaud the move, it is important that we don't get carried away with great expectations we need to understand the real role that currency futures can play in an economy, and as a step towards greater deregulation of financial market.

#### Currency Futures

A futures contract is a standardized contract, traded on an exchange, to buy or sell a certain underlying asset or an instrument at a certain date in the future, at a specified price. When the underlying asset is a commodity, e.g. Oil or Wheat, the contract is termed a "commodity futures contract". When the underlying is an exchange rate, the contract is termed a "currency futures contract". In other words, it is a contract to exchange one currency for another currency at a specified date and a specified rate in the future. Therefore, the buyer and the seller lock themselves into an exchange rate for a specific value or delivery date. Both parties of the futures contract must fulfill their obligations on the settlement date. Currency futures can be cash settled or settled by delivering the respective obligation of the seller and buyer. All settlements however, unlike in the case of OTC markets, go through the exchange. Currency futures are a linear product, and calculating profits or losses on Currency Futures will be similar to calculating profits or losses on Index futures. In determining profits and losses in futures trading, it is essential to know both the contract size (the number of currency units being traded) and also what the tick value is. A tick is the minimum trading increment or price differential at which traders are able to enter bids and offers. Tick values differ for different currency pairs and different underlying. For e.g. in the case of the USD-INR currency futures contract the tick size shall be 0.25 paise or 0.0025

Rupees. To demonstrate how a move of one tick affects the price, imagine a trader buys a contract (USD 1000 being the value of each contract) at Rs.42.2500. One tick move on this contract will translate to Rs.42.2475 or Rs.42.2525 depending on the direction of market movement.

Purchase price: Rs.42.2500

Price increases by one tick: +Rs.00.0025

New price: Rs.42.2525

Purchase price: Rs.42.2500

Price decreases by one tick: -Rs.00.0025

New price: Rs.42.2475

The value of one tick on each contract is Rupees 2.50. So if a trader buys 5 contracts and the price moves up by 4 tick, she makes Rupees 50.

Step 1: 42.2600 – 42.2500

Step 2: 4 ticks \* 5 contracts = 20 points

Step 3: 20 points \* Rupees 2.5 per tick = Rupees 50

(Note: please note the above examples do not include transaction fees and any other fees, which are essential for calculating final profit and loss)

#### Rationale for introducing Currency Futures

Futures markets were designed to solve the problems that exist in forward Markets. A futures contract is an agreement between two parties to buy or sell an asset at certain time in the future at a certain price. But unlike forward Contracts, the futures contracts are standardized and exchange traded. To facilitate liquidity in the futures contracts, the exchange specifies certain standard features of the contract. A futures contract is standardized contract with standard underlying instrument, a standard quantity and quality of the underlying instrument that can be delivered, (or which can be used for reference purposes in settlement) and a standard timing of such settlement. A futures contract may be offset

prior to maturity by entering into an equal and opposite transaction.

The standardized items in a futures contract are:

- Quantity of the underlying
- Quality of the underlying
- The date and the month of delivery
- The units of price quotation and minimum price change
- Location of settlement

The rationale for introducing currency futures in the Indian context has been outlined in the Report of the Internal Working Group on Currency Futures (Reserve Bank of India, April 2008) as follows; the rationale for establishing the currency futures market is manifold. Both residents and non-residents purchase domestic currency assets. If the exchange rate remains unchanged from the time of purchase of the asset to its sale, no gains and losses are made out of currency exposures. But if domestic currency depreciates (appreciates) against the foreign currency, the exposure would result in gain (loss) for residents purchasing foreign assets and loss (gain) for non-residents purchasing domestic assets. In this backdrop, unpredicted movements in exchange rates expose investors to currency risks. Currency futures enable them to hedge these risks. Nominal exchange rates are often random walks with or without drift, while real exchange rates over long run are mean reverting. As such, it is possible that over a long – run, the incentive to hedge currency risk may not be large. However, financial planning horizon is much smaller than the long-run, which is typically inter-generational in the context of exchange rates. As such, there is a strong need to hedge currency risk and this need has grown manifold with fast growth in cross-border trade and investments flows. The argument for hedging currency risks

appear to be natural in case of assets, and applies equally to trade in goods and services, which results in income flows with leads and lags and get converted into different currencies at the market rates. Empirically, changes in exchange rate are found to have very low correlations with foreign equity and bond returns. This in theory should lower portfolio risk. Therefore, sometimes argument is advanced against the need for hedging currency risks. But there is strong empirical evidence to suggest that hedging reduces the volatility of returns and indeed considering the episodic nature of currency returns, there are strong arguments to use instruments to hedge currency risks. Currency risks could be hedged mainly through forwards, futures, swaps and options. Each of these instruments has its role in managing the currency risk. The main advantage of currency futures over its closest substitute product, viz. forwards which are traded over the counter lies in price transparency, elimination of counterparty credit risk and greater reach in terms of easy accessibility to all. Currency futures are expected to bring about better price discovery and also possibly lower transaction costs. Apart from pure hedgers, currency futures also invite arbitrageurs, speculators and those traders who may take a bet on exchange rate movements without an underlying or an economic exposure as a motivation for trading. From an economy-wide perspective, currency futures contribute to hedging of risks and help traders and investors in undertaking their economic activity.

There is a large body of empirical evidence which suggests that exchange rate volatility has an adverse impact on foreign trade. Since there are first order gains from trade which contribute to output growth and consumer welfare, currency futures can

potentially have an important impact on real economy. Gains from international risk sharing through trade in assets could be of relatively smaller magnitude than gains from trade. However, in a dynamic setting these

investments could still significantly impact capital formation in an economy and as such currency futures could be seen as a facilitator in promoting investment and aggregate demand in the economy, thus

Symbol	USDINR	EURINR	GBPINR	JPYINR
Unit of trading	1 (1 unit denotes 1000 USD)	1 (1 unit denotes 1000 EURO)	1 (1 unit denotes 1000 POUND STERLING)	1 (1 unit denotes 100000 YEN)
Underlying	INR/USD Exchange Rate	INR/EURO Exchange Rate	INR/GBP Exchange Rate	INR/JPY Exchange Rate
Initial Margin	Subject to a minimum of 1.75% on the first day of trading and 1% thereafter	Subject to a minimum of 2.80% on the first day of trading and 2% thereafter	Subject to a minimum of 3.20% on the first day of trading and 2% thereafter	Subject to a minimum of 4.50% on the first day of trading and 2.30% thereafter
Tick Size	Rs. 0.25Paise	Rs. 0.25Paise	Rs. 0.25Paise	Rs. 0.25Paise
Extreme loss margin	1% of MTM value of open position.	0.3% of MTM value of gross open positions.	0.5% of MTM value of gross open positions.	0.7% of MTM value of gross open positions
Final settlement price (FSP)	RBI reference rate		Exchange rate published by the Reserve Bank in its Press Release captioned RBI Reference Rate for US\$ and Euro.	
Contract Trading Cycle	12 Month Trading Cycle			
Last Trading day	2 Working days prior to the last business day of the expiry month at 12 noon			
Daily Settlement Price	Calculated on the basis of last half an hour weighted average price.			
Trading Hours	Monday to Friday : 9.00 am to 5.00 pm			
Settlement Date	Daily Settlement: T+1 Final Settlement: T+2			

promoting growth.

#### Future Market Instruments

The Currency Derivatives segment of NSE provides trading facilities for the following derivative instruments at present:

- Currency Derivatives based on rate of exchange between one US Dollar and Indian Rupee (USDINR).
- Currency Derivatives based on rate of exchange between one European Euro and Indian Rupee (EURINR).
- Currency Derivatives based on rate of exchange between one Pound Sterling and Indian Rupee (GBPINR).
- Currency Derivatives based on rate of exchange between one Japanese Yen and Indian Rupee (JPYINR).

#### Specification Regarding Currency While Trading

NSE trades Currency Derivatives contracts having near 12 calendar month Expiry cycles. All contracts expire on the last working day of every month (subject to holiday calendars). The last trading day for the contract would be two working days

#### Hedging

Hedging is used forex futures to reduce or eliminate risk by insulating themselves against any future price movements. There are many reasons to use a hedging strategy in the forex futures market. One main purpose is to neutralize the effect of currency fluctuations on sales revenue.

Presume that the current spot rate is Rs.43 and 'USDINR 27 Aug 08' contract is trading at Rs.44.2500. Entity A shall do the following:

Sell one August contract today. The value of the contract is Rs.44, 250.

Let us assume the RBI reference rate on August 27, 2008 is Rs.44.0000. The Entity shall sell on August 27, 2008, USD 1000 in the spot market and get Rs.44, 000. The

prior to the contract expiration date. Thus for a January contract the last trading day would be two working days prior to the expiration date. The contract would cease to trade at 12:00 noon on the last trading day. The new contract with 12 month expiry would be introduced immediately ensuring availability of 12 near month contracts for trading at any point. Depending on the time period for which you want to take an exposure in currency futures contracts, you can place buy and sell orders in the respective contracts. The Instrument type: FUTCUR refers to "Futures contract on currency" and Contract symbol: USDINR denotes a "Futures contract on US Dollars – Indian Rupee" Each futures contract has a separate limit order book. All passive orders are stacked in the system in terms of price-time priority and trades take place at the passive order price (order which has come earlier and residing in the system). The best buy order for a given futures contract will be the order to buy at the highest price whereas the best sell order will be the order to sell at the lowest price.

Presume Entity A is expecting a remittance for USD 1000 on 27 August 08. And wants to lock in the foreign exchange rate today so that the value of inflow in Indian rupee terms is safeguarded. The entity can do so by selling one contract of USDINR futures since one contract is for USD 1000.

futures contract will settle at Rs.44.0000 (final settlement price =RBI reference rate). The return from the futures transaction would be Rs. 250, i.e. (Rs. 44,250 – Rs.44, 000). As may be observed, the effective rate for the remittance received by the entity A is Rs.44.2500 (Rs.44,000 + Rs.250)/1000, while spot rate on that date was Rs.44.0000. The entity was able to hedge its exposure.

A perfect hedge is one that completely eliminates the risk. Perfect hedges are rare. For the most part, therefore, a study of hedging using futures contracts is a study of the ways in which hedges can be constructed so that they perform as close to perfect as possible. The objective is usually to take a position that neutralizes the risk as far as possible.

#### Hedging Tools

##### ▪ SHORT HEDGES

A short hedge is a hedge, such as the one just described, that involves a short position in futures contracts. A short hedge is appropriate when the individual or company is expecting receivables in certain future date and exposed to a risk of getting domestic currency appreciating. So, this risk can be minimized by taking appropriate position of future date for respective underlying asset.

##### ▪ LONG HEDGES

Hedges that involve taking a long position in a future contract are known as long hedges. A long hedge is appropriate when company or individual knows that he want to do certain payments in foreign currencies. So, there is risk of domestic currency getting depreciating.

This both hedge payoffs are shown below:

#### FUTURES PAYOFFS

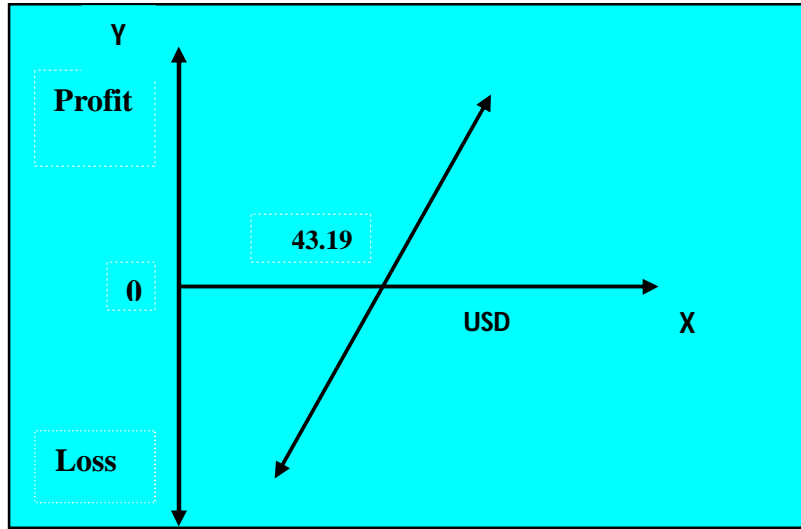
A payoff is the likely profit/loss that would accrue to a market participant with change in the price of the

underlying asset. This is generally depicted in the form of payoff diagrams which show the price of the underlying asset on the X-axis and the profits/losses on the Y-axis.

Futures contracts have linear payoffs. In simple words, it means that the losses as well as profits for the buyer and the seller of a futures contract are unlimited. Options do not have linear payoffs. Their pay offs are non-linear. These linear payoffs are fascinating as they can be combined with options and the underlying to generate various complex payoffs. However, currently only payoffs of futures are discussed as exchange traded foreign currency options are not permitted in India.

#### Payoff for buyer of futures: Long futures

The payoff for a person who buys a futures contract is similar to the payoff for a person who holds an asset. He has a potentially unlimited upside as well as a potentially unlimited downside. Take the case of a speculator who buys a two-month currency futures contract when the USD stands at say Rs.43.19. The underlying asset in this case is the currency, USD. When the value of dollar moves up, i.e. when Rupee depreciates, the long futures position starts making profits, and when the dollar depreciates, i.e. when rupee appreciates, it starts making losses. Following figure shows the payoff diagram for the buyer of a futures contract.



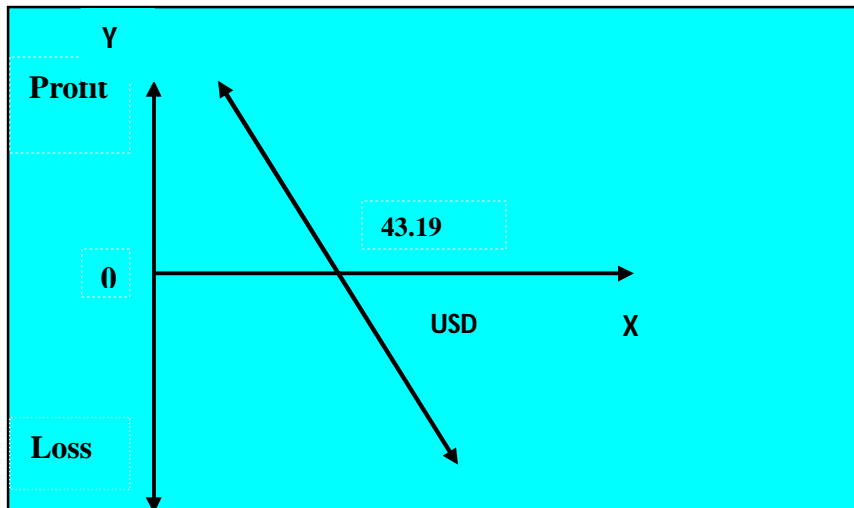
The figure shows the profits/losses for a long futures position. The investor bought futures when the USD was at Rs.43.19. If the price goes up, his futures position starts making profit. If the price falls, his futures position starts showing losses.

Payoff for seller of futures: Short futures

The payoff for a person who sells a futures contract is similar to the payoff for a person who shorts an asset. He has a potentially unlimited upside as well as a potentially unlimited downside. Take the case of a speculator who sells a two month currency futures contract when the USD stands at say Rs.43.19.

The underlying

asset in this case is the currency, USD. When the value of dollar moves down, i.e. when rupee appreciates, the short futures position starts making profits, and when the dollar appreciates, i.e. when rupee depreciates, it starts making losses. The Figure below shows the payoff diagram for the seller of a futures contract.



The figure shows the profits/losses for a short futures position. The investor sold futures when the USD was at 43.19. If the price goes down, his futures position starts making profit. If the price rises, his futures position starts showing losses.

### Objectives

The objectives are as follows:

- To study the currency futures and understand its importance for introduction in Indian market.
- To understand Foreign Exchange Market Development in Indian Perspective.
- To study the currency futures and understand its importance for introduction in Indian market.
- To know currency futures reliability and how it is beneficial in enhancing Foreign Exchange Markets.

### Literature Review

This chapter reflects literature applicable to the topic underneath study. The key concerns under review are the theoretical review, experimental review, and management of foreign exchange risk foreign exchange exposure management, experimental review and measurement of derivative usage. There are numerous models of hedging, utmost of which attain at the optimal hedging strategies by familiarizing some resistance to the standard Modigliani Miller model. In Froot, Scharfstein, and Stein (1993), hedging can decrease the underinvestment difficulty that would result from variant in cash and expensive access to outside financing. In DeMarzo and Duffie (1995), while shareholders are able to hedge on their own, hedging is optimal when directors had isolated information on the firm's expected

profits. In the elongated run, a relationship between interest rate differentials and subsequent changes in spot exchange rate seems to exist 15 but with considerable deviations in the short run. The International Fisher Effect is known not to be a good predictor of short run changes in spot exchange rates.

### Research Methodology

The scope of research with respect to the project is utility oriented. The method used to collect data includes observations and interactive techniques.

Two main sources of data come from the inner world of library and the outside world of people, which can be broadly designated as the primary and secondary data.

- Primary Data:

The data gathered at first hand, comprises of the primary data. For this particular project to fulfill the objectives of this project, primary data served as a crucial element. Various websites.

The primary data was collected through following:

1. Discussions held with Senior Manager of the Kunvarji Finstock Pvt.Ltd.

- Secondary Data:

The set of data obtained from established literature and books form the secondary source of data. For this particular project, data and information was obtained from the following sources:

1. Mode of gathering data was through the company's records.
2. Reference books.
3. Various websites.

The details of which are mentioned in the bibliography at the end of this report.

### Scope of the Study



The impact of exchange rate volatility on domestic aggregates can be minimized with the help of hedging strategies in Currency Futures. Through 3 of the cases by considering. How exchange rate trends impact particular business trade can be studied. How it overcomes the limitations of forward contract.

Protection against the foreign exchange currency fluctuation risk using a variety of approaches with the help of long and short hedging strategies. Hedge effectiveness can be assessed through Currency Futures.

The study can be used anywhere where currency fluctuation risk exposure exists say corporate, students willing to study abroad, small enterprises where the incomes and expenses are in different currencies.

Due to this, it feels essential to study the topic “To study the implications of currency futures as a hedging tool”, with the highlight of import and export transaction”.

**Limitations**

- Only future derivative instrument is considered and forwards only the basic things is considered, unable to study and analyze all the derivative instruments used for hedging purpose and its impact.
- Due to confidentiality of documents and information we are not allowed to disclose the actual data of the organization.
- Company needs to maintain certain secrecy therefore they do not disclose all data or papers which are for the project.

**Data Analysis and Interpretation using case studies**

Analysis of Case I

An oil refiner importer having payables of USD 100,000 on 28th July is exposed to the risk of Dollar appreciation.

	3 <sup>rd</sup> May 2010 Spot	28 <sup>th</sup> July 2010 Futures
Today Price	44.80	45.74

The Importer will buy 100 contracts of USD Futures July (\$100000) for Rs.45.74.

Now here,

Contact size is \$1000 for 1contract, so for 100 contract is \$100000 Margin amount required would be ₹80045 i.e. 1.75% of ₹ 4574000 (\$100000\*45.74) for first day, according to contract specification and thereafter 1% is required to maintain.

So, the position is squared off at the price ₹ 46.815 and took the position at the price Rs.45.74. This shows by using Long Hedge strategies, the trader is able to transfer the risk of Dollar getting appreciated and was able to make a profit of ₹107500.

Through this following table, the computation can be seen:

Dollar Appreciated (28 <sup>th</sup> July)
USD/INR Spot : ₹ 46 July Futures : ₹ 46.815
Sell Future contract: ₹ 46.815 Profit/ loss = ₹ (46.815 – 45.74) * 100000 Profit = ₹ 1,07,500
Payables in Spot = ₹ 46,00,000
Net Payables = (46,00,000 – 1,07,500) = ₹ 44,92,500

Conclusion

The Importer was required to pay ₹46,00,000, but due to hedging strategies, it is now required to pay ₹44,92,500. As it is payable in spot and the spot price is ₹46 per \$. This shows how the risk is transferred to future and the importer is in better position to pay the amount due to hedging strategies. Through this importer is able to minimize the risk of Dollar appreciation and able to transfer the risk.

In the short term, firms can make gains or losses from hedging. But the basic purpose of hedging is to protect against excessive losses and to benefit from knowing exactly how much it was going to get from its import deal to avoid the uncertainty associated with future exchange rate movements.

Analysis of Case II

An Indian IT exporter receives an export order worth, say, ₹ 100,000 from a Japanese trading firm with the delivery date being in 3 months' time i.e. in July. At the time when contract is placed, the Japanese Yen(JPY) is worth say ₹53.59 in the spot market, while on MCX-SX a futures contract for an expiry date that matches with order payment date is trading, say, at ₹53.285. This puts the value of the order, when placed, at ₹5328500. However, if the domestic exchange rate appreciates significantly (to ₹53.0425) when the order is paid for (which is one month after the delivery date), the firm would receive only ₹5304250 rather than ₹ 5328500.

	25 <sup>th</sup> May 2010 Spot	28 <sup>th</sup> July 2010 Futures
Today Price	53.59	53.285

To insure against such losses, the firm can, at the time it receives the order, can enter into 1 Japanese Yen futures contract of ₹100,000 each to sell at ₹53.285 a Japanese Yen(JPY), which involves contracting to sell a foreign currency on expiry date at the

agreed exchange rate. Suppose on payment date the exchange rate is, say, ₹53.285, the exporter would receive only ₹53042500 on selling the Japanese Yen in the spot market, but gains ₹24250 (i.e. 53.285 - 53.0425\* 100,000) in the futures market. Thus, overall

the firm receives ₹5328500 and protects itself from the sharp appreciation of domestic currency against Japanese Yen. Now here, Contact size is ¥100000 for 1contract. Margin amount required would be ₹

239782.5 i.e. 4.50% of ₹5328500 (¥100000\*53.285) for first day, according to contract specification and thereafter 2.30% is required to maintain. Following table shows the computation of the transaction:

<b>Yen Depreciated (28th July)</b>
JPY/INR Spot : ₹ 53.295 Nov Futures : ₹ 53.285
Buy Future contract: ₹ 53.0425 Profit/ loss = ₹ (53.285 – 53.0425) * 100000 Profit = ₹24250
Payable in spots: ₹ 5329500
Net Receivables = (5329500+ 24250) = ₹ 5353750

Conclusion

This shows due to short hedge strategies the exporter is able to get the amount in a favorable situation. It reflects how the risk is transferred of getting fewer amount due to huge volatility and able to be in better position. In the short term, firms can make gains or losses from hedging. But the basic purpose of hedging is to protect against excessive

losses and to benefit from knowing exactly how much it was going to get from its export deal to avoid the uncertainty associated with future exchange rate movements.

Analysis of Case III

An organic chemicals dealer in India placed an import order worth, say, £100,000 with a Britain Manufacturer on 28th July is exposed to the risk of Pound appreciation.

	25 <sup>th</sup> May 2010 Spot	28 <sup>th</sup> July 2010 Futures
Today Price	68.66	72.875

The Importer will buy 100 contracts of GBP Futures July (£100000) for Rs. 72.875. Now here, Contact size is £1000 for 1contract, so for 100 contract is £100000. Margin amount required would be ₹233200 i.e. 3.20% of ₹ 7287500 (\$100000\*720875) for first day, according to contract specification and thereafter 2% is required to maintain.

So, the position is squared off at the price ₹ 73.195 and took the position at the price ₹ 72.875. This shows by using Long Hedge strategies, the trader is able to transfer the risk of Pound getting appreciated and was able to make a profit of ₹32000. Through this following table, the computation can be seen:

Pound Appreciated (28th July)
GBP/INR Spot : ₹ 73.1375 July Futures : ₹ 72.875
Sell Future contract: ₹ 73.195 Profit/ loss = ₹ (73.195– 72.875) * 100000 Profit = ₹32000
Payables in Spot = ₹7313750
Net Payables = (7313750– 32000) = ₹ 7281750

**Conclusion**

The Importer was required to pay ₹ 7313750, but due to hedging strategies, it is now required to pay ₹7281750. As it is payable in spot and the spot price is ₹ 73.1375 per \$. This shows how the risk is transferred to future and the importer is in better position to pay the amount due to hedging strategies.

Through this importer is able to minimize the risk of Pound appreciation and able to transfer the risk. In the short term, firms can make gains or losses from hedging. But the basic purpose of hedging is to protect

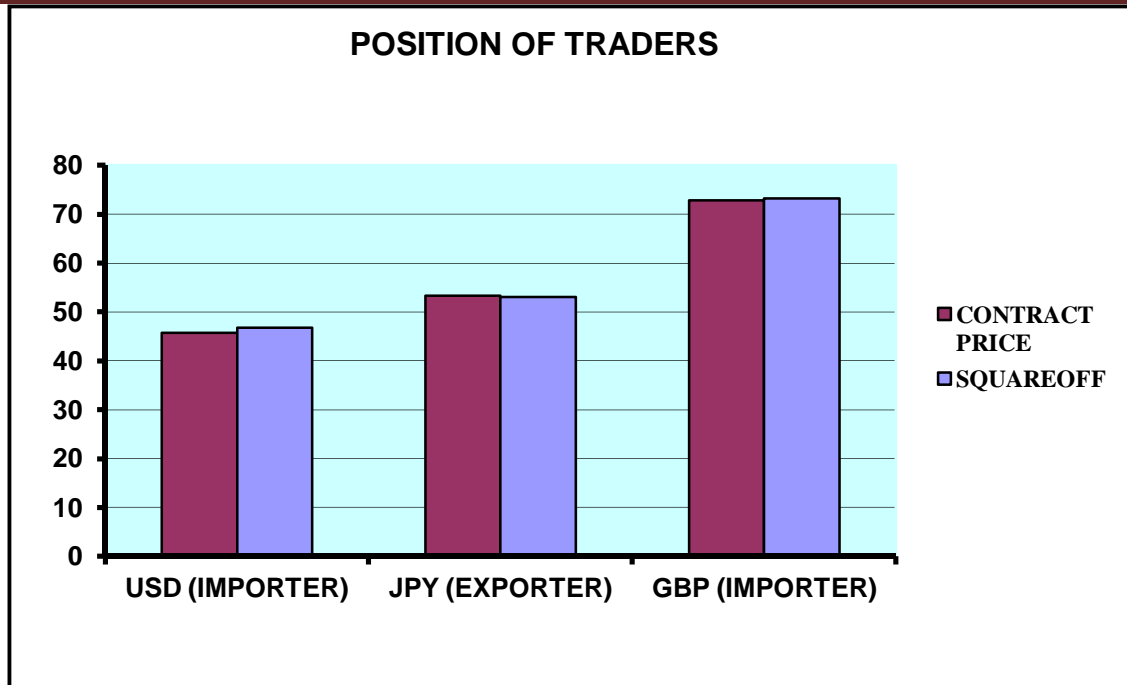
against excessive losses and to benefit from knowing exactly how much it was going to get from its import deal to avoid the uncertainty associated with future exchange rate movements.

**Analysis of position of 3 different types of trader’s position**

Following table depicts the trader contract taken price in the month of May the futures position and the squared off position on the particular future date for the value taken. And they tried to minimize the risk exposed to the underlying assets by hedging their position.

UNDERLYING ASSETS	CONTRACT PRICE(₹)	SQUAREOFF PRICE(₹)	PROFIT (₹)
USD	45.74	46.815	1.075
JPY	53.285	53.0425	0.2425
GBP	72.875	73.195	0.32

The following chart shows the position of traders:



This shows 3 different types of traders who were exposed to risk of appreciation and depreciation accordingly. The exporter is always exposed to risk domestic currency appreciating and the importer is always exposed to a risk of domestic currency depreciating.

The position as we see the of Importer of Oil refinery whose underlying asset is Dollar was in profitable position at the time of maturity in July, which is ₹1.075 and taken 100 contracts which consist of \$1000 units and it is multiplied with the contract size and total profit is ascertained accordingly.

The second trader of IT Exporter whose underlying asset is Japanese Yen was in profitable position at the time of maturity in July, which is ₹0.2425 and he has taken 1 contract which consist of ¥100000 and squared off position in July at the date of maturity and is in better position.

The third trader of organic chemicals whose underlying asset was British Pound was in profitable position at the time of maturity in

the month of July, which is ₹0.32 and has taken 100 contracts and which consist of £1000 units and squared off the position and been at safer side.

So, through hedging the position as for importer there is long hedge and for the exporter there is a short hedge. This helps a trader to transfer the risk exposed to the future and be in a better position at the time of delivery.

Here one more thing can be done if a trader is not willing to close the position at the time of maturity of the contract then he can roll over the position by taking the future desire months position like if it is the long hedge position he can take the position of future maturity by selling of the current maturity periods contract and take the future maturity periods of the contract.

As it is seen this all traders are Indian residential traders and they are only eligible to take the positions in the currency futures market.

---

---

### Findings and Observations

- The Long and Short hedging strategy used by the company for hedging purpose is simple to minimize the exposed risk of the currency.
- Companies are currently using Long hedge and Short hedge which are used accordingly and evaluated on timely basis after taking position and are successful in mitigating the risk.
- Factor influencing rate of exchange needs closer study so, that hedging would be successful.
- The client should be made aware of what are the possible factors affecting the currency rates of exchange, so that they can face the volatility of market and be at better position while taking position as well as squaring off the position.

### Conclusions

The company operates successfully which decides the strategies and plans for the

client. It uses Long and short hedge tool which helps to minimize the risk and used according the client. The company has good focus on client for currency futures and trying to target more and more importer and exporter like the corporate who have involvement in foreign deal.

About factor influencing, since economic indicators gauge a country's economic state, changes in the conditions reported will therefore directly affect the price and volume of a country's currency. It is important to keep in mind, however, that the indicators said above are not the only things that affect a currency's price. Recently, the downturn in the global economy and collapse of financial system made investors risk averse and that affected the currencies of most Asian currencies, this can be attributed to the fact that investors moved their investments from risky assets to relatively safe assets like dollar which is considered to be a safe haven asset.

### Recommendations

1. *After the study of the foreign currency futures implication of the company some of the important suggestions are as follows:*
2. *The company should continue with the existing derivative instrument used to reduce currency risk effectively.*
3. *The company must even focus on individuals who are exposed to the currency risk, as regulators have permitted for any Indian residential and try to target them along with importers and exporters.*
4. *As permission is granted from the regulators to FII's and NRI's to access this market, company must start targeting them as it would add to domestic liquidity, which, needless to say, is the only criterion for the success of a futures contract.*
5. *The target as done to the exporter and importer, this can be prioritized according to the understanding of our countries major imports and exports taken place.*
6. *The target can be done even to the HNI's (High Net worth Individuals).*

### Bibliography

1. JOHN C. HULL, " *OPTIONS, FUTURES AND DERIVATIVES*" and 7<sup>th</sup> edition.
2. <http://www.mcx-sx.com>
3. <http://www.kunvarji.com>
4. <http://www.taxguru.in/sebi/sebi-circular-on-currency-futures-on-additional-currency-pairs.html>
5. <http://www.tradingeconomics.com/Economics/Interest-Rate.aspx?symbol=INR>