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Workbook for

NISM-Series-I: Currency Derivatives Certification Examination

Workbook for

NISM-Series-I
Currency Derivatives Certification Examination
(NISM-Series-I: CD Examination)

National Institute of Securities Markets

This workbook has been developed to assist candidates in preparing for the National Institute of Securities Markets (NISM) NISM-Series-I: Currency Derivatives Certification Examination (NISM-Series-I: CD Examination).

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About NISM

In pursuance of the announcement made by the Finance Minister in his Budget Speech in February 2005, Securities and Exchange Board of India (SEBI) has established the National Institute of Securities Markets (NISM) in Mumbai.

SEBI, by establishing NISM, has articulated the desire expressed by the Indian government to promote securities market education and research.

Towards accomplishing the desire of Government of India and vision of SEBI, NISM has launched an effort to deliver financial and securities education at various levels and across various segments in India and abroad. To implement its objectives, NISM has established six distinct schools to cater the educational needs of various constituencies such as investor, issuers, intermediaries, regulatory staff, policy makers, academia and future professionals of securities markets.

NISM brings out various publications on securities markets with a view to enhance knowledge levels of participants in the securities industry.

NISM is mandated to implement certification examinations for professionals employed in various segments of the Indian securities markets.

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About the NISM-Series-I: Currency Derivatives Certification Examination (NISM-Series-I: CD Examination)

The examination seeks to create a common minimum knowledge benchmark for persons working in the currency derivative segment, in order to enable a better understanding of currency markets and exchange traded currency future products, better quality investor service, operational process efficiency and risk controls.

Examination Objectives

On successful completion of the examination the candidate should:

- Know the basics of currency markets and specifically Exchange Traded Currency Futures markets.
- Understand the trading, clearing and settlement mechanisms related to Exchange Traded Currency Futures markets and basic investment strategies that use currency futures products.
- Know the regulatory environment in which the Exchange Traded Currency Futures markets operate in India.

Assessment Structure

The NISM-Series-I: Currency Derivatives Certification Examination (NISM-Series-I: CD Examination) will be of 100 marks, will have 60 questions, and should be completed in 2 hours. There will be negative marking of 25% of the marks assigned to a question. The passing score for the examination is 60%.

How to register and take the examination

To find out more and register for the examination please visit www.nism.ac.in

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CHAPTER 1 INTRODUCTION TO CURRENCY MARKETS

1.1 BASIC FOREIGN EXCHANGE DEFINITIONS

Spot: Foreign exchange spot trading is buying one currency with a different currency for immediate delivery. The standard settlement convention for Foreign Exchange Spot trades is T+2 days, i.e., two business days from the date of trade. An exception is the USD/CAD (USD–Canadian Dollars) currency pair which settles T+1. Rates for days other than spot are always calculated with reference to spot rate.

Forward Outright: A foreign exchange forward is a contract between two counterparties to exchange one currency for another on any day after spot. In this transaction, money does not actually change hands until some agreed upon future date. The duration of the trade can be a few days, months or years. For most major currencies, three business days or more after deal date would constitute a forward transaction.

	Settlement date / Value Date	Definition
Value Cash	Trade Date	Same day as deal date
Value Tom (Tomorrow)	Trade Date + 1	1 business day after deal date
Spot	Trade Date + 2	2 business days after deal date*
Forward Outright	Trade Date + 3 or any later date	3 business days or more after deal date, always longer than Spot

* USD/CAD is the exception

Base Currency / Terms Currency: In foreign exchange markets, the base currency is the first currency in a currency pair. The second currency is called as the terms currency. Exchange rates are quoted in per unit of the base currency. Eg. The expression US Dollar–Rupee, tells you that the US Dollar is being quoted in terms of the Rupee. The US Dollar is the base currency and the Rupee is the terms currency.

Exchange rates are constantly changing, which means that the value of one currency in terms of the other is constantly in flux. Changes in rates are expressed as strengthening or weakening of one currency vis-à-vis the other currency. Changes are also expressed as appreciation or depreciation of one currency in terms of the other currency. Whenever the base currency buys more of the terms currency, the base currency has strengthened / appreciated and the terms currency has weakened / depreciated. Eg. If US Dollar–Rupee moved from 43.00 to 43.25, the US Dollar has appreciated and the Rupee has depreciated.

Swaps: A foreign exchange swap is a simultaneous purchase and sale, or sale and purchase, of identical amounts of one currency for another with two different value dates. Foreign Exchange Swaps are commonly used as a way to facilitate funding in the cases where funds are available in a different currency than the one needed. Effectively, each party to the deal is given the use of an amount of foreign currency for a specific time.

The Forward Rate is derived by adjusting the Spot rate for the interest rate differential of the two currencies for the period between the Spot and the Forward date. Liquidity in one currency is converted into another currency for a period of time.

1.2 EXCHANGE RATE MECHANISM

“Foreign Exchange” refers to money denominated in the currency of another nation or a group of nations. Any person who exchanges money denominated in his own nation’s currency for money denominated in another nation’s currency acquires foreign exchange.

This holds true whether the amount of the transaction is equal to a few rupees or to billions of rupees; whether the person involved is a tourist cashing a travellers' cheque or an investor exchanging hundreds of millions of rupees for the acquisition of a foreign company; and whether the form of money being acquired is foreign currency notes, foreign currency-denominated bank deposits, or other short-term claims denominated in foreign currency.

A foreign exchange transaction is still a shift of funds or short-term financial claims from one country and currency to another. Thus, within India, any money denominated in any currency other than the Indian Rupees (INR) is, broadly speaking, "foreign exchange." Foreign Exchange can be cash, funds available on credit cards and debit cards, travellers' cheques, bank deposits, or other short-term claims. It is still "foreign exchange" if it is a short-term negotiable financial claim denominated in a currency other than INR.

Almost every nation has its own national currency or monetary unit - Rupee, US Dollar, Peso etc.- used for making and receiving payments within its own borders. But foreign currencies are usually needed for payments across national borders. Thus, in any nation whose residents conduct business abroad or engage in financial transactions with persons in other countries, there must be a mechanism for providing access to foreign currencies, so that payments can be made in a form acceptable to foreigners. In other words, there is need for "foreign exchange" transactions—exchange of one currency for another.

The exchange rate is a price - the number of units of one nation's currency that must be surrendered in order to acquire one unit of another nation's currency. There are scores of "exchange rates" for INR and other currencies, say US Dollar. In the spot market, there is an exchange rate for every other national currency traded in that market, as well as for various composite currencies or constructed monetary units such as the Euro or the International Monetary Fund's "SDR". There are also various "trade-weighted" or "effective" rates designed to show a currency's movements against an average of various other currencies (for eg US Dollar index, which is a weighted index against world major currencies like Euro, Pound Sterling, Yen, and Canadian Dollar). Apart from the spot rates, there are additional exchange rates for other delivery dates in the forward markets.

The market price is determined by the interaction of buyers and sellers in that market, and a market exchange rate between two currencies is determined by the interaction of the official and private participants in the foreign exchange rate market. For a currency with an exchange rate that is fixed, or set by the monetary authorities, the central bank or another official body is a participant in the market, standing ready to buy or sell the currency as necessary to maintain the authorized pegged rate or range. But in countries like the United States, which follows a complete free floating regime, the authorities are not known to intervene in the foreign exchange market on a continuous basis to influence the exchange rate. The market participation is made up of individuals, non-financial firms, banks, official bodies, and other private institutions from all over the world that are buying and selling US Dollars at that particular time.

The participants in the foreign exchange market are thus a heterogeneous group. The various investors, hedgers, and speculators may be focused on any time period, from a few minutes to several years. But, whatever is the constitution of participants, and whether their motive is investing, hedging, speculating, arbitraging, paying for imports, or seeking to influence the rate, they are all part of the aggregate demand for and supply of the currencies involved, and they all play a role in determining the market price at that instant. Given the diverse views, interests, and time frames of the participants, predicting the future course of exchange rates is a particularly complex and uncertain exercise. At the same time, since the exchange rate influences such a vast array of participants and business decisions, it is a pervasive and singularly important price in an open economy, influencing consumer prices, investment decisions, interest rates, economic growth, the location of industry, and much more. The role of the foreign exchange market in the determination of that price is critically important.

1.3 MAJOR CURRENCIES OF THE WORLD

The US Dollar is by far the most widely traded currency. In part, the widespread use of the US Dollar reflects its substantial international role as “investment” currency in many capital markets, “reserve” currency held by many central banks, “transaction” currency in many international commodity markets, “invoice” currency in many contracts, and “intervention” currency employed by monetary authorities in market operations to influence their own exchange rates.

In addition, the widespread trading of the US Dollar reflects its use as a “vehicle” currency in foreign exchange transactions, a use that reinforces its international role in trade and finance. For most pairs of currencies, the market practice is to trade each of the two currencies against a common third currency as a vehicle, rather than to trade the two currencies directly against each other. The vehicle currency used most often is the US Dollar, although very recently euro also has become an important vehicle currency.

Thus, a trader who wants to shift funds from one currency to another, say from Indian Rupees to Philippine Pesos, will probably sell INR for US Dollars and then sell the US Dollars for Pesos. Although this approach results in two transactions rather than one, it may be the preferred way, since the US Dollar/INR market and the US Dollar/Philippine Peso market are much more active and liquid and have much better information than a bilateral market for the two currencies directly against each other. By using the US Dollar or some other currency as a vehicle, banks and other foreign exchange market participants can limit more of their working balances to the vehicle currency, rather than holding and managing many currencies, and can concentrate their research and information sources on the vehicle currency.

Use of a vehicle currency greatly reduces the number of exchange rates that must be dealt with in a multilateral system. In a system of 10 currencies, if one currency is selected as the vehicle currency and used for all transactions, there would be a total of nine currency pairs or exchange rates to be dealt with (i.e. one exchange rate for the vehicle currency against each of the others), whereas if no vehicle currency were used, there would be 45 exchange rates to be dealt with. In a system of 100 currencies with no vehicle currencies, potentially there would be 4,950 currency pairs or exchange rates [the formula is: n(n-1)/2]. Thus, using a vehicle currency can yield the advantages of fewer, larger, and more liquid markets with fewer currency balances, reduced informational needs, and simpler operations.

The US Dollar took on a major vehicle currency role with the introduction of the Bretton Woods par value system, in which most nations met their IMF exchange rate obligations by buying and selling US Dollars to maintain a par value relationship for their own currency against the US Dollar. The US Dollar was a convenient vehicle because of its central role in the exchange rate system and its widespread use as a reserve currency. The US Dollar’s vehicle currency role was also due to the presence of large and liquid US Dollar money and other financial markets, and, in time, the Euro-US Dollar markets, where the US Dollars needed for (or resulting from) foreign exchange transactions could conveniently be borrowed (or placed).

Other Major Currencies include:

The Euro

Like the US Dollar, the Euro has a strong international presence and over the years has emerged as a premier currency, second only to the US Dollar.

The Japanese Yen

The Japanese Yen is the third most traded currency in the world. It has a much smaller international presence than the US Dollar or the Euro. The Yen is very liquid around the world, practically around the clock.

The British Pound

Until the end of World War II, the Pound was the currency of reference. The nickname Cable is derived from the telegrams used to update the GBP/USD rates across the Atlantic. The currency is heavily traded against the Euro and the US Dollar, but it has a spotty presence against other currencies. The two-year bout with the Exchange Rate Mechanism, between 1990 and 1992, had a soothing effect on the British Pound, as it generally had to follow the Deutsche Mark's fluctuations, but the crisis conditions that precipitated the pound's withdrawal from the Exchange Rate Mechanism had a psychological effect on the currency.

The Swiss Franc

The Swiss Franc is the only currency of a major European country that belongs neither to the European Monetary Union nor to the G-7 countries. Although the Swiss economy is relatively small, the Swiss Franc is one of the major currencies, closely resembling the strength and quality of the Swiss economy and finance. Switzerland has a very close economic relationship with Germany, and thus to the Euro zone.

Typically, it is believed that the Swiss Franc is a stable currency. Actually, from a foreign exchange point of view, the Swiss Franc closely resembles the patterns of the Euro, but lacks its liquidity.

Currency Table

The Currency Table is a a user-friendly table that provides information on currency movements.

	USD	EUR	GBP	JPY
USD	1	0.7468	0.6627	99.19
EUR	1.339	1	0.8869	132.66
GBP	1.509	1.1275	1	149.53
JPY	0.0101	0.0075	0.0067	1

1.4 OVERVIEW OF INTERNATIONAL CURRENCY MARKETS

During the past quarter century, the concept of a 24-hour market has become a reality. Somewhere on the planet, financial centres are open for business; banks and other institutions are trading the US Dollar and other currencies every hour of the day and night, except on weekends. In financial centres around the world, business hours overlap; as some centres close, others open and begin to trade. The foreign exchange market follows the sun around the earth.

Business is heavy when both the US markets and the major European markets are open -that is, when it is morning in New York and afternoon in London. In the New York market, nearly two-thirds of the day's activity typically takes place in the morning hours. Activity normally becomes very slow in New York in the mid-to late afternoon, after European markets have closed and before the Tokyo, Hong Kong, and Singapore markets have opened.

Given this uneven flow of business around the clock, market participants often will respond less aggressively to an exchange rate development that occurs at a relatively inactive time of day, and will wait to see whether the development is confirmed when the major markets open. Some institutions pay little attention to developments in less active markets. Nonetheless, the 24-hour market does provide a continuous "real-time" market

assessment of the ebb and flow of influences and attitudes with respect to the traded currencies, and an opportunity for a quick judgment of unexpected events. With many traders carrying pocket monitors, it has become relatively easy to stay in touch with market developments at all times.

The market consists of a limited number of major dealer institutions that are particularly active in foreign exchange, trading with customers and (more often) with each other. Most of these institutions, but not all, are commercial banks and investment banks. These institutions are geographically dispersed, located in numerous financial centres around the world. Wherever they are located, these institutions are in close communication with each other; linked to each other through telephones, computers, and other electronic means.

Each nation's market has its own infrastructure. For foreign exchange market operations as well as for other connected matters, each country enforces its own laws, banking regulations, accounting rules, taxation and operates its own payment and settlement systems. Thus, even in a global foreign exchange market with currencies traded on essentially the same terms simultaneously in many financial centres, there are different national financial systems and infrastructures through which transactions are executed, and within which currencies are held.

With access to all of the foreign exchange markets generally open to participants from all countries, and with vast amounts of market information transmitted simultaneously and almost instantly to dealers throughout the world, there is an enormous amount of cross-border foreign exchange trading among dealers as well as between dealers and their customers.

At any moment, the exchange rates of major currencies tend to be virtually identical in all the financial centres where there is active trading. Rarely are there such substantial price differences among major centres as to provide major opportunities for arbitrage. In pricing, the various financial centres that are open for business and active at any one time are effectively integrated into a single market.

1.5 ECONOMIC VARIABLES IMPACTING EXCHANGE RATE MOVEMENTS

Various economic variables impact the movement in exchange rates. Interest rates, inflation figures, GDP are the main variables; however other economic indicators that provide direction regarding the state of the economy also have a significant impact on the movement of a currency. These would include employment reports, balance of payment figures, manufacturing indices, consumer prices and retail sales amongst others. Indicators which suggest that the economy is strengthening are positively correlated with a strong currency and would result in the currency strengthening and vice versa.

Currency trader should be aware of government policies and the central bank stance as indicated by them from time to time, either by policy action or market intervention. Government structures its policies in a manner such that its long term objectives on employment and growth are met. In trying to achieve these objectives, it sometimes has to work around the economic variables and hence policy directives and the economic variables are entwined and have an impact on exchange rate movements.

For instance, if the government wants to stimulate growth, one of the measures it could take would be cutting interest rates and if such a measure is seen to bear expected results then the market would react positively and its impact would also be seen in the strengthening of the home currency. Inflation and interest rates are opposites. In order to reduce inflation, which reduces the purchasing power of money, often the policy of high interest rate is followed but such a policy hinders growth therefore a policy to balance inflation and interest rates is considered ideal and the perception of the success of such a policy by the participants in the foreign exchange market will impact the movement and direction of the currency.

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CHAPTER 2 FOREIGN EXCHANGE DERIVATIVES

2.1 DERIVATIVES - DEFINITION

Derivative is a product whose value is derived from the value of one or more basic variables, called bases (underlying asset, index, or reference rate), in a contractual manner. The underlying asset can be equity, foreign exchange, commodity or any other asset. For example, wheat farmers may wish to sell their harvest at a future date to eliminate the risk of a change in prices by that date. Such a transaction is an example of a derivative. The price of this derivative is driven by the spot price of wheat which is the "underlying".

In the Indian context the Securities Contracts (Regulation) Act, 1956 [SC(R)A] defines "derivative" to include-

1. A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.
2. A contract which derives its value from the prices, or index of prices, of underlying securities.

Derivatives are securities under the SC(R)A and hence the trading of derivatives is governed by the regulatory framework under the SC(R)A.

The term derivative has also been defined in section 45U(a) of the RBI act as follows:

An instrument, to be settled at a future date, whose value is derived from change in interest rate, foreign exchange rate, credit rating or credit index, price of securities (also called “underlying”), or a combination of more than one of them and includes interest rate swaps, forward rate agreements, foreign currency swaps, foreign currency-rupee swaps, foreign currency options, foreign currency-rupee options or such other instruments as may be specified by the Bank from time to time.

Derivative products initially emerged as hedging devices against fluctuations in commodity prices, and commodity-linked derivatives remained the sole form of such products for almost three hundred years. Financial derivatives came into spotlight in the post-1970 period due to growing instability in the financial markets. However, since their emergence, these products have become very popular and by 1990s, they accounted for about two-thirds of total transactions in derivative products. In recent years, the market for financial derivatives has grown tremendously in terms of variety of instruments available, their complexity and also turnover.

Box 2.1: Emergence of financial derivative products

2.2 DERIVATIVE PRODUCTS

Derivative contracts have several variants. The most common variants are forwards, futures, options and swaps. We take a brief look at various derivatives contracts that have come to be used.

Forwards: A forward contract is a customized contract between two parties, where settlement takes place on a specific date in the future at today's pre-agreed price.

Futures: A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that they are standardized and are generally traded on an exchange.

Options: Options are of two types - calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

Warrants: Options generally have tenors of upto one year; the majority of options traded on options exchanges have a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter (OTC).

LEAPS: The acronym LEAPS means Long Term Equity Anticipation Securities. These are options having a maturity of upto three years.

Baskets: Basket options are options on portfolios of underlying assets. The underlying asset is usually a moving average of a basket of assets. Equity index option is a form of basket option.

Swaps: Swaps are agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are:

- *Interest rate swaps:* These entail swapping only the interest related cash flows between the parties in the same currency.

- *Currency swaps:* These entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.

Swaptions: Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus a swaption is an option on a forward swap. Rather than have calls and puts, the swaptions market has receiver swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and receive floating.

2.3 GROWTH DRIVERS OF DERIVATIVES

Over the last three decades, the derivatives market has seen a phenomenal growth. A large variety of derivative contracts have been launched at exchanges across the world. Some of the factors driving the growth of financial derivatives are:

1. Increased volatility in asset prices in financial markets,
2. Increased integration of national financial markets with the international financial markets,
3. Marked improvement in communication facilities and sharp decline in their costs,
4. Development of more sophisticated risk management tools, providing a wider choice of risk management strategies, and
5. Innovations in the derivatives markets, which optimally combine the risks and returns over a large number of financial assets, leading to higher returns, reduced risk and lower transactions costs as compared to individual financial assets.

2.4 MARKET PLAYERS

The following three broad categories of participants - hedgers, speculators, and arbitrageurs - trade in the derivatives market. Hedgers face risk associated with the price of an asset and they use futures or options markets to reduce or eliminate this risk. Speculators wish to bet on future movements in the price of an asset. Futures and options contracts can give them an extra leverage; that is, they can increase both the potential gains and potential losses in a speculative venture. Arbitrageurs are in business to take advantage of a

discrepancy between prices in two different markets. If, for example, they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

2.5 KEY ECONOMIC FUNCTION OF DERIVATIVES

Despite the fear and criticism with which the derivative markets are commonly looked at, these markets perform a number of economic functions.

1. Prices in an organized derivatives market reflect the perception of market participants about the future and lead the prices of underlying to the perceived future level. The prices of derivatives converge with the prices of the underlying at the expiration of the derivative contract. Thus derivatives help in discovery of future prices.
2. The derivatives market helps to transfer risks from those who have them but may not like them to those who have an appetite for risks.
3. Derivatives, due to their inherent nature, are linked to the underlying cash markets. With the introduction of derivatives, the underlying market witnesses higher trading volumes because of participation by more players who would not otherwise participate for lack of an arrangement to transfer risk.
4. Speculative trades shift to a more controlled environment of derivatives market. In the absence of an organized derivatives market, speculators trade in the underlying cash markets. Margining, monitoring and surveillance of the activities of various participants become extremely difficult in these types of mixed markets.

Early forward contracts in the US addressed merchants' concerns about ensuring that there were buyers and sellers for commodities. However 'credit risk" remained a serious problem. To deal with this problem, a group of Chicago businessmen formed the Chicago Board of Trade (CBOT) in 1848. The primary intention of the CBOT was to provide a centralized location known in advance for buyers and sellers to negotiate forward contracts. In 1865, the CBOT went one step further and listed the first 'exchange traded" derivatives contract in the US, these contracts were called 'futures contracts". In 1919, Chicago Butter and Egg Board, a spin-off of CBOT, was reorganized to allow futures trading. Its name was changed to Chicago Mercantile Exchange (CME). The CBOT and the CME were, until recently the two largest organized futures exchanges, which have merged to become the “CME Group”.

The first stock index futures contract was traded at Kansas City Board of Trade. Currently the most popular stock index futures contract in the world is based on S&P 500 index, traded on Chicago Mercantile Exchange. During the mid eighties, financial futures became the most active derivative instruments generating volumes many times more than the commodity futures. Index futures, futures on T-bills and Euro-Dollar futures are the three most popular futures contracts traded today. Other popular international exchanges that trade derivatives are LIFFE in England, DTB in Germany, SGX in Singapore, TIFFE in Japan, MATIF in France, Eurex etc.

Box 2.2: History of derivatives markets

5. An important incidental benefit that flows from derivatives trading is that it acts as a catalyst for new entrepreneurial activity. The derivatives have a history of attracting many bright, creative, well-educated people with an entrepreneurial attitude. They often energize others to create new businesses, new products and new employment opportunities, the benefits of which are immense.

In a nut shell, derivatives markets help increase savings and investment in the long run. Transfer of risk enables market participants to expand their volume of activity.

2.6 EXCHANGE-TRADED VS. OVER –THE- COUNTER DERIVATIVES

Derivatives have probably been around for as long as people have been trading with one another. Forward contracting dates back at least to the 12th century, and may well have been around before then. Merchants entered into contracts with one another for future delivery of specified amount of commodities at specified price. A primary motivation for pre-arranging a buyer or seller for a stock of commodities in early forward contracts was to lessen the possibility that large swings would inhibit marketing the commodity after a harvest.

As the name suggests, derivatives that trade on an exchange are called exchange traded derivatives, whereas privately negotiated derivative contracts are called OTC derivatives.

The OTC derivatives markets have witnessed rather sharp growth over the last few years which have accompanied the modernization of commercial and investment banking and globalisation of financial activities. The recent developments in information technology have contributed to a great extent to these developments. While both exchange-traded and OTC derivative contracts offer many benefits, the former have rigid structures compared to the latter.

The OTC derivatives markets have the following features compared to exchange-traded derivatives:

1) The management of counter-party (credit) risk is decentralized and located within individual institutions,

2) There are no formal centralized limits on individual positions, leverage, or margining; limits are determined as credit lines by each of the counterparties entering into these contracts

3) There are no formal rules for risk and burden-sharing,

4) There are no formal rules or mechanisms for ensuring market stability and integrity, and for safeguarding the collective interests of market participants, and

5) Although OTC contracts are affected indirectly by national legal systems, banking supervision and market surveillance, they are generally not regulated by a regulatory authority.

Some of the features of OTC derivatives markets embody risks to financial market stability. The following features of OTC derivatives markets can give rise to instability in institutions, markets, and the international financial system:

(i) the dynamic nature of gross credit exposures;

(ii) information asymmetries;

(iii) the effects of OTC derivative activities on available aggregate credit;

(iv) the high concentration of OTC derivative activities in major institutions; and

(v) the central role of OTC derivatives markets in the global financial system.

Instability arises when shocks, such as counter-party credit events and sharp movements in asset prices that underlie derivative contracts occur, which significantly alter the perceptions of current and potential future credit exposures. When asset prices change rapidly, the size and configuration of counter-party exposures can become unsustainably large and provoke a rapid unwinding of positions.

There has been some progress in addressing these risks and perceptions. However, the progress has been limited in implementing reforms in risk management, including counter-party, liquidity and operational risks, and OTC derivatives markets continue to pose a threat to international financial stability. The problem is more

acute as heavy reliance on OTC derivatives creates the possibility of systemic financial events, which fall outside the more formal clearing corporation structures.

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CHAPTER 3 EXCHANGE TRADED CURRENCY FUTURES

3.1 CURRENCY FUTURES -DEFINITION

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 and delivery date. Both parties of the futures contract must fulfill their obligations on the settlement date.

Internationally, 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 underlyings. For e.g. in the case of the USD-INR currency futures contract the tick size shall be 0.25 paise or 0.0025 Rupee. 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 (1000X 0.0025). So if a trader buys 5 contracts and the price moves up by 4 ticks, he makes Rupees 50.00

Step 1: 42.2600 – 42.2500
Step 2: 4 ticks * 5 contracts = 20 points
Step 3: 20 points * Rupees 2.5 per tick = Rupees 50.00

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

3.2 FUTURES TERMINOLOGY

- *Spot price:* The price at which an asset trades in the spot market. In the case of USD/INR, spot value is T + 2.

- *Futures price:* The price at which the futures contract trades in the futures market.

- *Contract cycle:* The period over which a contract trades. The currency futures contracts on the SEBI recognized exchanges have one-month, two-month, and three-month up to twelve-month expiry cycles. Hence, these exchanges will have 12 contracts outstanding at any given point in time.

- *Value Date/Final Settlement Date:* The last business day of the month will be termed the Value date / Final Settlement date of each contract. The last business day would be taken to the same as that for Inter-bank Settlements in Mumbai. The rules for Inter-bank Settlements, including those for 'known holidays' and 'subsequently declared holiday' would be those as laid down by Foreign Exchange Dealers' Association of India (FEDAI).

- *Expiry date:* It is the date specified in the futures contract. All contracts expire on the last working day (excluding Saturdays) of the contract months. The last day for the trading of the contract shall be two working days prior to the final settlement date or value date.

- *Contract size:* The amount of asset that has to be delivered under one contract. Also called as lot size. In the case of USD/INR it is USD 1000; EUR/INR it is EUR 1000; GBP/INR it is GBP 1000 and in case of JPY/INR it is JPY 100,000. (Ref. RBI Circular: RBI/2009-10/290, dated 19th January, by which RBI has allowed trade in EUR/INR, JPY/INR and GBP/INR pairs.)[1]

- *Basis:* In the context of financial futures, basis can be defined as the futures price minus the spot price. There will be a different basis for each delivery month for each contract. In a normal market, basis will be positive. This reflects that futures prices normally exceed spot prices.

- *Cost of carry:* The relationship between futures prices and spot prices can be summarized in terms of what is known as the cost of carry. This measures (in commodity markets) the storage cost plus the interest that is paid to finance or 'carry' the asset till delivery less the income earned on the asset. For equity derivatives carry cost is the rate of interest.

- *Initial margin:* The amount that must be deposited in the margin account at the time a futures contract is first entered into is known as initial margin.

- *Marking-to-market:* In the futures market, at the end of each trading day, the margin account is adjusted to reflect the investor's gain or loss depending upon the futures closing price. This is called marking-to-market.

3.3 RATIONALE BEHIND CURRENCY FUTURES

Futures markets were designed to address certain problems that exist in forward markets. A futures contract is an agreement between two parties to buy or sell an asset at a 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 of the underlying instrument

[1] In this book, we will discuss the concepts taking USD/INR as an example.

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
- 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. Per se, 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 promoting growth".

The Chicago Mercantile Exchange (CME) created FX futures, the first ever financial futures contracts, in 1972. The contracts were created under the guidance and leadership of Leo Melamed, CME Chairman Emeritus. The FX contract capitalized on the U.S. abandonment of the Bretton Woods agreement, which had fixed world exchange rates to a gold standard after World War II. The abandonment of the Bretton Woods agreement resulted in currency values being allowed to float, increasing the risk of doing business. By creating another type of market in which futures could be traded, CME currency futures extended the reach of risk management beyond commodities, which were the main derivative contracts traded at CME until then. The concept of currency futures at CME was revolutionary, and gained credibility through endorsement of Nobel-prize-winning economist Milton Friedman.

Today, CME offers 41 individual FX futures and 31 options contracts on 19 currencies, all of which trade electronically on the exchange's CME Globex platform. It is the largest regulated marketplace for FX trading.

Traders of CME FX futures are a diverse group that includes multinational corporations, hedge funds, commercial banks, investment banks, financial managers, commodity trading advisors (CTAs), proprietary trading firms, currency overlay managers and individual investors. They trade in order to transact business, hedge against unfavourable changes in currency rates, or to speculate on rate fluctuations.

Box 3.1: Emergence and growth of FX futures

3.4 DISTINCTION BETWEEN FUTURES AND FORWARD CONTRACTS

Forward contracts are often confused with futures contracts. The confusion is primarily because both serve essentially the same economic functions of allocating risk in the probability of future price uncertainty. However futures have some distinct advantages over forward contracts as they eliminate counterparty risk and offer more liquidity and price transparency. However, it should be noted that forwards enjoy the benefit of being customized to meet specific client requirements. The advantages and limitations of futures contracts are as follows;

Advantages of Futures:

- Transparency and efficient price discovery. The market brings together divergent categories of buyers and sellers.
- Elimination of Counterparty credit risk.
- Access to all types of market participants. (Currently, in the Foreign Exchange OTC markets one side of the transaction has to compulsorily be an Authorized Dealer – i.e. Bank).
- Standardized products.
- Transparent trading platform.

Limitations of Futures:

- The benefit of standardization which often leads to improving liquidity in futures, works against this product when a client needs to hedge a specific amount to a date for which there is no standard contract
- While margining and daily settlement is a prudent risk management policy, some clients may prefer not to incur this cost in favor of OTC forwards, where collateral is usually not demanded

3.5 INTEREST RATE PARITY AND PRICING OF CURRENCY FUTURES

For currencies which are fully convertible, the rate of exchange for any date other than spot, is a function of spot and the relative interest rates in each currency. The assumption is that, any funds held will be invested in a time deposit of that currency. Hence, the forward rate is the rate which neutralizes the effect of differences in the interest rates in both the currencies.

In the context of currencies, like USD/INR which are not fully convertible, forwards and futures prices can be influenced by several factors including regulations that are in place at any given point in time. The forward rate is a function of the spot rate and the interest rate differential between the two currencies, adjusted for time. A futures contract is a standardized forward contract traded through an exchange to eliminate counterparty risk.

In order to derive the forward rate from the spot rate, there are three commonly used formulae which give similar results, viz.

a. Term : Base Formula

b. Spot-Forward r& p Formula

c. Continuous Compounding Formula

a. Term : Base Formula

Forward Rate = Spot + Points

$$\text{Points} = \text{Spot}\left(\frac{1 + \text{terms i} * \frac{\text{days}}{\text{basis}}}{1 + \text{base i} * \frac{\text{days}}{\text{basis}}} - 1\right)$$

Where:

i = rate of interest

basis = day count basis (Most currencies use a 360-day basis, except the pound sterling and a few others, which use a 365-day year.)

b. Spot-Forward r& p Formula

The spot exchange rate is S_0. This quote is in USD per INR. The US risk-free interest rate is p, and the holding period is T. You take $S_0(1+ p)^{-T}$ INR and buy $(1+ p)^{-T}$ dollars. Simultaneously, you sell one future contract expiring at time T. The future exchange rate is F0, which is also in INR per dollar. You take your $(1+ p)^{-T}$ dollars and invest them in US T-bills that have a return of p.

When the forward contract expires, you will have 1 dollar. This is because your $(1+ \rho)^{-T}$ dollars will have grown by the factor $(1+ p)^{T}$ therefore $(1+ p)^{-T}$ $(1+ p)^{T} = 1$. Your forward contract obligates you to deliver the dollar, for

which you receive F(0,T) INR. In effect, you have invested $S_0(1+ p)^{-T}$ and received F(0,T) INR. Since the transaction is riskless, your return should be the INR rate, r; therefore:

$F(0,T) = S_0(1+ r)^{T}/ (1+p)^{T}$

C. Continuous Compounding Formula

$F(0,T) = S_0e^{(r-p)T}$

Illustration:

Consider the following example from an Indian perspective. On January 31 of a particular year, the spot USD/INR rate was 43.50. The US interest rate was 3 percent, while the Indian interest rate was 6 percent. The time to expiration was 90/360 = 0.25.

This can be solved using three different formulae as illustrated below:

(a) Terms:Base Formula	(b) Spot Forward r& p Formula	(c) Continuous Compounding Formula
Forward Rate = Spot + Points $\text{Points} = \text{Spot}\left(\frac{1 + \text{terms i} * \frac{\text{days}}{\text{basis}}}{1 + \text{base i} * \frac{\text{days}}{\text{basis}}} - 1\right)$	$F(0,T) = S_0(1+ r)^{T}/ (1+p)^{T}$	$F(0,T) = S_0e^{(r-p)T}$
Points = 43.5 {[(1+.06*.25)/(1+.03*.25)]-1} = 0.3238 Forward Rate = 43.5 + (.3238) = 43.8238	F = 43.5 * [(1+.06)^.25] / [(1+.03)^.25]	F = 43.5 * e [(.06-.03) * .25]
Ans: 43.8238	Ans: 43.8133	Ans: 43.8275

The term '*e'* is a well-known mathematical expression to simplify a larger expression:

$(1+r/\infty)^{\infty}$ which signifies continuous compounding on a given interest rate. The best approximation of *e* is 2.71828183.

As can be noticed from the above table, the three formulae give results which are similar but not identical. Any of these formulae can be used for decision making. However, from a trading perspective, greater levels of accuracy may be desired. Hence, traders prefer the Continuous Compounding formula.

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CHAPTER 4 STRATEGIES USING CURRENCY FUTURES

4.1 SPECULATION IN FUTURES MARKETS

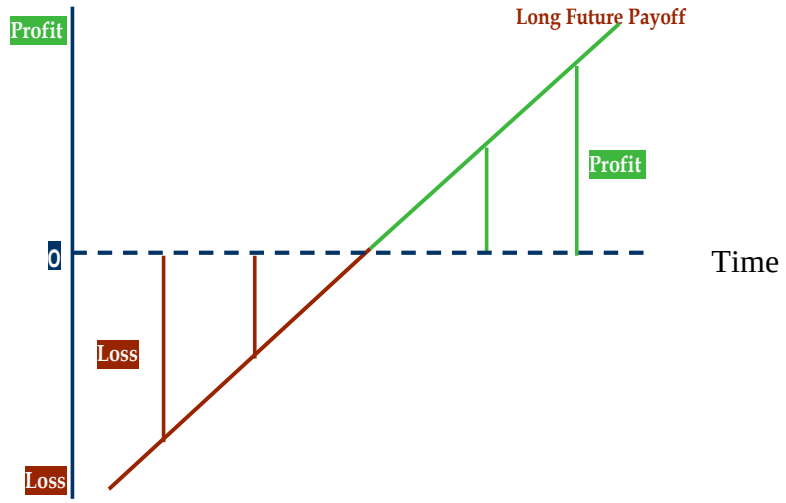
Speculators play a vital role in the futures markets. Futures are designed primarily to assist hedgers in managing their exposure to price risk; however, this would not be possible without the participation of speculators. Speculators, or traders, assume the price risk that hedgers attempt to lay off in the markets. In other words, hedgers often depend on speculators to take the other side of their trades (i.e. act as counter party) and to add depth and liquidity to the markets that are vital for the functioning of a futures market. The speculators therefore have a big hand in making the market.

Speculation is not similar to manipulation. A manipulator tries to push prices in the reverse direction of the market equilibrium while the speculator forecasts the movement in prices and this effort eventually brings the prices closer to the market equilibrium. If the speculators do not adhere to the relevant fundamental factors of the spot market, they would not survive since their correlation with the underlying spot market would be nonexistent.

4.2 LONG POSITION IN FUTURES

Long position in a currency futures contract without any exposure in the cash market is called a speculative position. Long position in futures for speculative purpose means buying futures contract in anticipation of strengthening of the exchange rate (which actually means buy the base currency (USD) and sell the terms currency (INR) and you want the base currency to rise in value and then you would sell it back at a higher price). If the exchange rate strengthens before the expiry of the contract then the trader makes a profit on squaring off the position, and if the exchange rate weakens then the trader makes a loss.

Payoff – Long Position in Futures

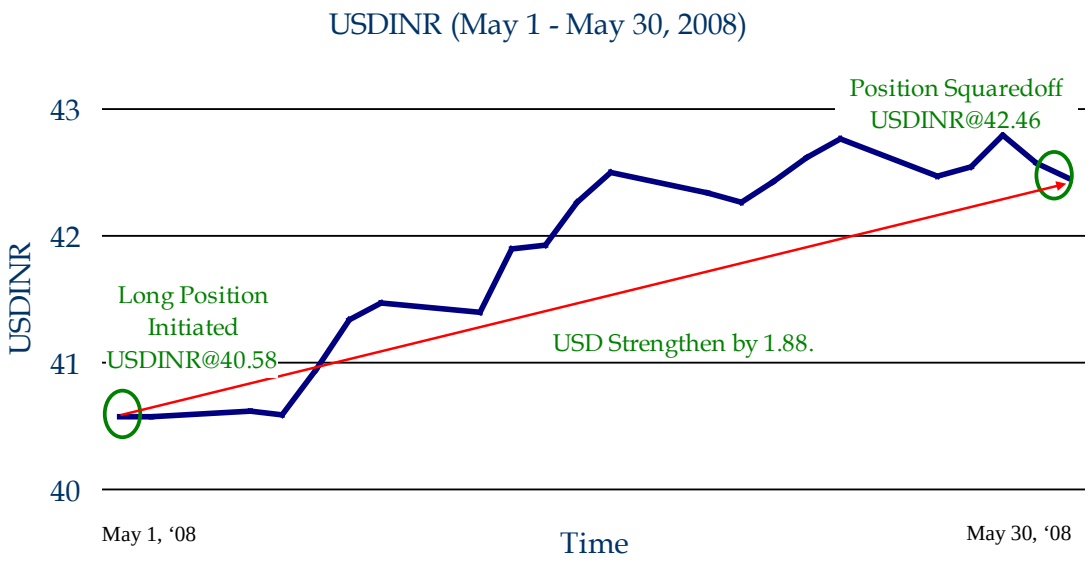


The graph above depicts the pay-off of a long position in a future contract, which does demonstrate that the pay-off of a trader is a linear derivative, that is, he makes unlimited profit if the market moves as per his directional view, and if the market goes against, he has equal risk of making unlimited losses if he doesn't choose to exit out his position.

Hypothetical Example – Long positions in futures

On May 1, 2008, an active trader in the currency futures market expects INR will depreciate against USD caused by India's sharply rising import bill and poor FII equity flows. On the basis of his view about the USD/INR movement, he buys 1 USD/INR August contract at the prevailing rate of Rs. 40.5800.

He decides to hold the contract till expiry and during the holding period USD/INR futures actually moves as per his anticipation and the RBI Reference rate increases to USD/INR 42.46 on May 30, 2008. He squares off his position and books a profit of Rs. 1880 (42.4600x1000 - 40.5800x1000) on 1 contract of USD/INR futures contract.



Observation: The trader has effectively analysed the market conditions and has taken a right call by going long on futures and thus has made a gain of Rs. 1,880.

4.3 SHORT POSITION IN FUTURES

Short position in a currency futures contract without any exposure in the cash market is called a speculative transaction. Short position in futures for speculative purposes means selling a futures contract in anticipation of decline in the exchange rate (which actually means sell the base currency (USD) and buy the terms currency (INR) and you want the base currency to fall in value and then you would buy it back at a lower price). If the exchange rate weakens before the expiry of the contract, then the trader makes a profit on squaring off the position, and if the exchange rate strengthens then the trader makes loss.

The graph above depicts the pay-off of a short position in a future contract which does exhibit that the pay-off of a short trader is a linear derivative, that is, he makes unlimited profit if the market moves as per his directional view and if the market goes against his view he has equal risk of making unlimited loss if he doesn't choose to exit out his position.

Example – Short positions in futures

On August 1, 2008, an active trader in the currency futures market expects INR will appreciate against USD, caused by softening of crude oil prices in the international market and hence improving India's trade balance. On the basis of his view about the USD/INR movement, he sells 1 USD/INR August contract at the prevailing rate of Rs. 42.3600.

On August 6, 2008, USD/INR August futures contract actually moves as per his anticipation and declines to 41.9975. He decides to square off his position and earns a profit of Rs. 362.50 (42.3600x1000 – 41.9975x1000) on squaring off the short position of 1 USD/INR August futures contract.

Observation: The trader has effectively analysed the market conditions and has taken a right call by going short on futures and thus has made a gain of Rs. 362.50 per contract with small investment (a margin of 3%, which comes to Rs. 1270.80) in a span of 6 days.

4.4 HEDGING USING CURRENCY FUTURES

Hedging: Hedging means taking a position in the future market that is opposite to a position in the physical market with a view to reduce or limit risk associated with unpredictable changes in exchange rate.

A hedger has an Overall Portfolio (OP) composed of (at least) 2 positions:

1. Underlying position
2. Hedging position with negative correlation with underlying position

Value of OP = Underlying position + Hedging position; and in case of a Perfect hedge, the Value of the OP is insensitive to exchange rate (FX) changes.

Types of FX Hedgers using Futures

Long hedge:

- Underlying position: short in the foreign currency
- Hedging position: long in currency futures

Short hedge:

- Underlying position: long in the foreign currency
- Hedging position: short in currency futures

The proper size of the Hedging position

- Basic Approach: Equal hedge
- Modern Approach: Optimal hedge

Equal hedge: In an Equal Hedge, the total value of the futures contracts involved is the same as the value of the spot market position. As an example, a US importer who has an exposure of £ 1 million will go long on 16 contracts assuming a face value of £62,500 per contract. Therefore in an equal hedge: Size of Underlying position = Size of Hedging position.

Optimal Hedge: An optimal hedge is one where the changes in the spot prices are negatively correlated with the changes in the futures prices and perfectly offset each other. This can generally be described as an equal hedge, except when the spot-future basis relationship changes. An Optimal Hedge is a hedging strategy which yields the highest level of utility to the hedger.

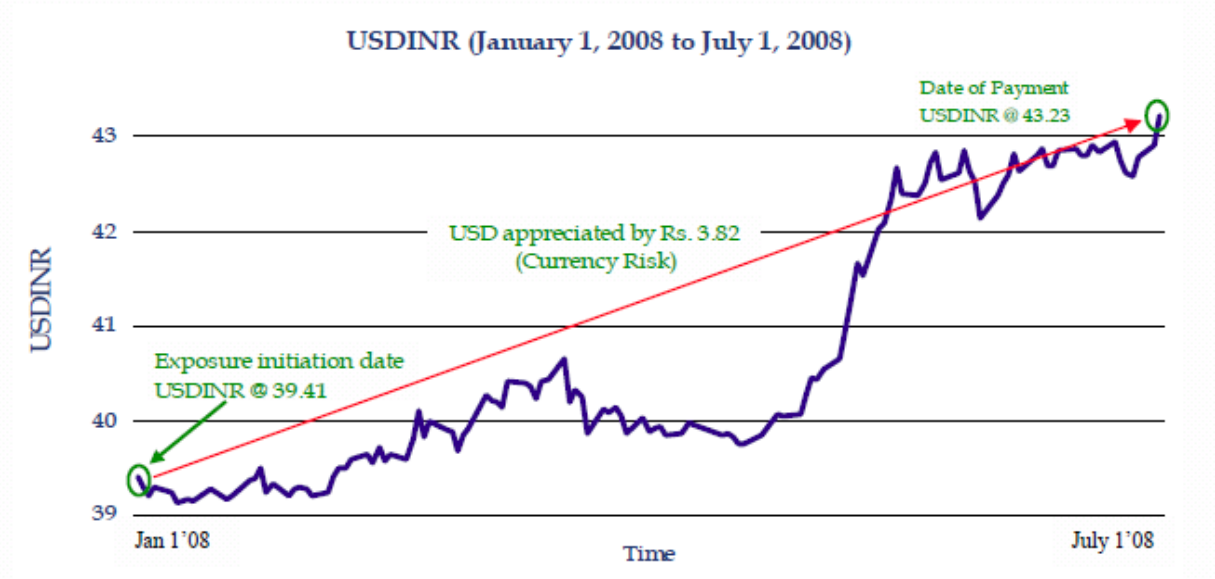
Corporate Hedging

Before the introduction of currency futures, a corporate hedger had only Over-the-Counter (OTC) market as a platform to hedge his currency exposure; however now he has an additional platform where he can compare between the two platforms and accordingly decide whether he will hedge his exposure in the OTC market or on an exchange or he will like to hedge his exposures partially on both the platforms.

Example 1: Long Futures Hedge Exposed to the Risk of Strengthening USD

Unhedged Exposure: Let's say on January 1, 2008, an Indian importer enters into a contract to import 1,000 barrels of oil with payment to be made in US Dollar (USD) on July 1, 2008. The price of each barrel of oil has been fixed at USD 110/barrel at the prevailing exchange rate of 1 USD = INR 39.41; the cost of one barrel of oil in INR works out to be Rs. 4335.10 (110 x 39.41). The importer has a risk that the USD may strengthen over the next six months causing the oil to cost more in INR; however, he decides not to hedge his position.

On July 1, 2008, the INR actually depreciates and now the exchange rate stands at 1 USD = INR 43.23. In dollar terms he has fixed his price, that is USD 110/barrel, however, to make payment in USD he has to convert the INR into USD on the given date and now the exchange rate stands at 1USD = INR43.23. Therefore, to make payment for one dollar, he has to shell out Rs. 43.23. Hence the same barrel of oil which was costing Rs. 4335.10 on January 1, 2008 will now cost him Rs. 4755.30, which means 1 barrel of oil ended up costing Rs. 4755.30 - Rs. 4335.10 = Rs. 420.20 more and hence the 1000 barrels of oil has become dearer by INR 4,20,200.

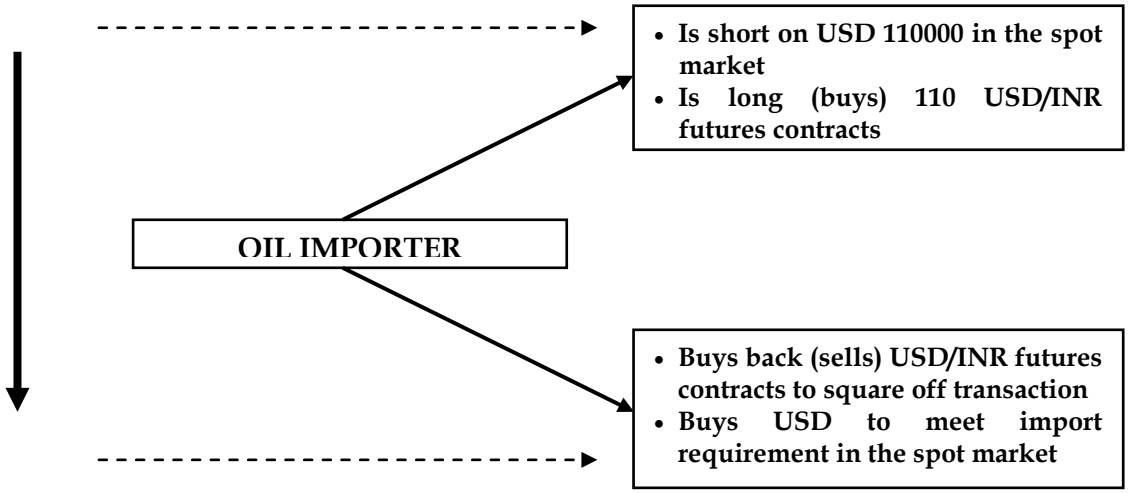


When INR weakens, he makes a loss, and when INR strengthens, he makes a profit. As the importer cannot be sure of future exchange rate developments, he has an entirely speculative position in the cash market, which can affect the value of his operating cash flows, income statement, and competitive position, hence market share and stock price.

Hedged: Let's presume the same Indian Importer pre-empted that there is good probability that INR will weaken against the USD given the current macro economic fundamentals of increasing Current Account deficit and FII outflows and decides to hedge his exposure on an exchange platform using currency futures.

Since he is concerned that the value of USD will rise he decides go long on currency futures, it means he purchases a USD/INR futures contract. This protects the importer because strengthening of USD would lead to

profit in the long futures position, which would effectively ensure that his loss in the physical market would be mitigated. The following figure and Exhibit explain the mechanics of hedging using currency futures.



Date	Spot Market	Futures Market
1-Jan-08	The current exchange rate is INR 39.41 per USD, therfore the current cost of 1000 barrel of oil in INR is **Rs. 4335100**.	July USD contract is at INR 39.90. Price per contract is INR 39,900 (39.90*1000). The appropriate number of contract is 110000/1000 = 110. **Buy 110 Contracts for 4389000**
1-Jul-08	The spot rate is 43.23. Buy the 110000 USD to import the oil. Cost in Rupees: 110000(43.23)= INR 4755300	Sell 110 contract at the prevailing rate of USDINR 43.72. Price per contract is INR 43720 (43.72*1000), hence the value of 110 contracts is INR 4809200

Analysis:

The oil ended up costing INR 4755300 - INR 4335100 = INR 420200 more

The profit on the futures transaction is:

INR 4809200	(Sale price of futures)
(INR 4389000)	(less - Buy price of futures)
INR 420200	Profit on futures

Return to hedge:

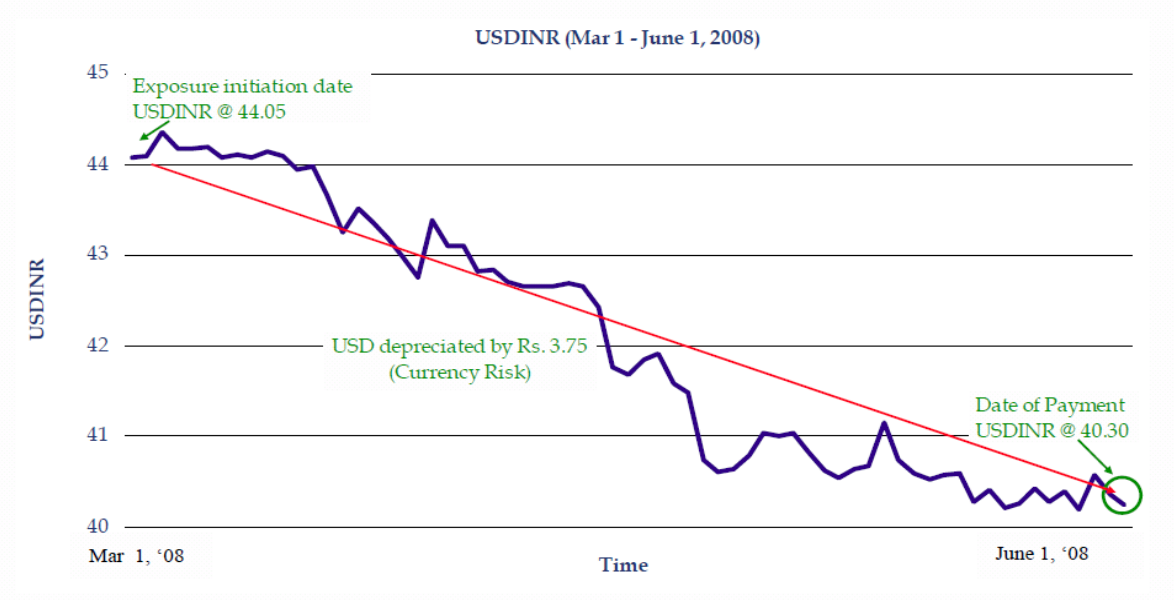
4755300	(Cash Purchase)
420200	(Future gain)
4335100	**(Return to hedge)**

Observation: Following a 9.7% rise in the spot price for USD, the US dollars are purchased at the new, higher spot price, but profits on the hedge foster an effective exchange rate equal to the original hedge price.

Example 2: Short Futures Hedge Exposed to the Risk of Weakening USD

Unhedged Exposure: Let's say on March 1, 2008, an Indian refiner enters into a contract to export 1000 barrels of oil with payment to be received in US Dollar (USD) on June 1, 2008. The price of each barrel of oil has been fixed at USD 80/barrel at the prevailing exchange rate of 1 USD = INR 44.05; the price of one barrel of oil in INR works out to be is Rs. 3524 (80 x 44.05). The refiner has a risk that the INR may strengthen over the next three months causing the oil to cost less in INR; however he decides not to hedge his position.

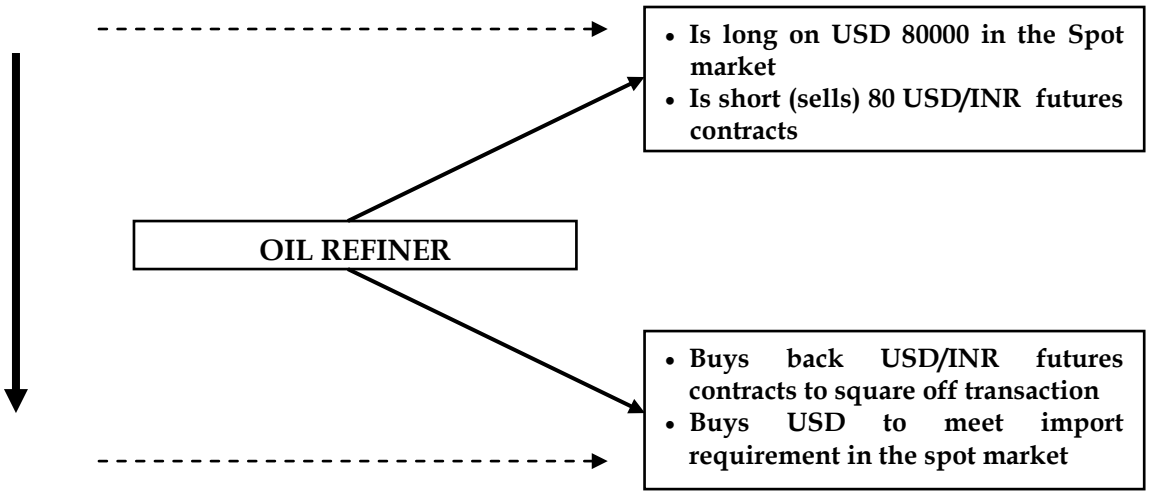
On June 1, 2008, the INR actually appreciates against the USD and now the exchange rate stands at 1 USD = INR 40.30. In dollar terms he has fixed his price, that is USD 80/barrel; however, the dollar that he receives has to be converted in INR on the given date and the exchange rate stands at 1USD = INR40.30. Therefore, every dollar that he receives is worth Rs. 40.30 as against Rs. 44.05. Hence the same barrel of oil that initially would have garnered him Rs. 3524 (80 x 44.05) will now realize Rs. 3224, which means 1 barrel of oil ended up selling Rs. 3524 – Rs. 3224 = Rs. 300 less and hence the 1000 barrels of oil has become cheaper by INR 3,00,000.



When INR strengthens, he makes a loss and when INR weakens, he makes a profit. As the refiner cannot be sure of future exchange rate developments, he has an entirely speculative position in the cash market, which can affect the value of his operating cash flows, income statement, and competitive position, hence market share and stock price.

Hedged: Let's presume the same Indian refiner pre-empted that there is good probability that INR will strengthen against the USD given the current macroeconomic fundamentals of reducing fiscal deficit, stable current account deficit and strong FII inflows and decides to hedge his exposure on an exchange platform using currency futures.

Since he is concerned that the value of USD will fall he decides go short on currency futures, it means he sells a USD/INR future contract. This protects the importer because weakening of USD would lead to profit in the short futures position, which would effectively ensure that his loss in the physical market would be mitigated. The following figure and exhibit explain the mechanics of hedging using currency futures.



Date	Spot Market	Futures Market
1-Mar-07	The current exchange rate is INR 44.05 per USD, therefore the current price of 1000 barrel of oil in INR is **Rs. 3524000**.	June USD contract is at INR 44.20. Price per contract is INR 44,200 (44.20*1000). The appropriate number of contract he should sell is 80000/1000 = 80. **Sell 80 Contracts for 3536000.**
1-Jun-07	The spot rate is 40.30. Receive 80000 USD for export of oil. Revenues in Rupees: 80000(40.30) = INR 3224000	Buy 80 contract at the prevailing rate of USDINR 40.45. Price per contract is INR 40450 (40.45*1000), hence the value of 80 contracts is INR 3236000.

Analysis:

The oil ended up garnering INR 3524000 - INR 3224000 = INR 300000 Less

The profit on the futures transaction is:

INR 3536000	(Sale price of futures)
(INR 3236000)	(less - Buy price of futures)
INR 300000	Profit on futures

Return to hedge:

3224000	(Cash Sales)
300000	(Future gain)
3524000	**(Return to hedge)**

Observation: Following an 8.51% fall in the spot price for USD, the US dollars are sold at the new, lower spot price; but profits on the hedge foster an effective exchange rate equal to the original hedge price.

Example 3 (Variation of Example 1): Long Futures Hedge Exposed to the Risk of Contract Expiry and Liquidation on the Same Day

	Initiation of hedge	Liquidation of hedge
Transaction date	1-Jan	28-Jun
Spot value date	3-Jan	30-Jun
Futures delivery date	17-Jun	30-Jun
Spot price($/FX)	39.41	43.72
Futures price	**39.90**	43.72
Results		
INR paid for USD 110000 on June 30: INR 43.72 x 110000 = INR 4809200		
Hedge result: USD 110000 x (Rs. 43.72 - 39.90) = INR 420200		
Effective exchange rate = (INR 4809200 - INR 420200)/110000 = **39.90**		

Observation: The size of the exposure is USD 110000 and the desired value date is precisely the same as the futures delivery date (June 30). Following a 9.5% rise in the spot price for USD against INR, the US dollars are purchased at the new, higher spot price; but profits on the hedge foster an effective exchange rate equal to the original futures price because on the date of expiry the spot price and the future price tend to converge.

Example 4: Retail Hedging – Long Futures Hedge Exposed to the Risk of a stronger USD

On 1st March 2008, a student decides to enroll for CMT-USA October 2008 exam for which he needs to make a payment of USD 1,000 on 15th September, 2008. On 1st March, 2008 USD/INR rate of 40.26, the price of enrolment in INR works out to be Rs. 40,260. The student has the risk that the USD may strengthen over the next six months causing the enrolment to cost more in INR hence decides to hedge his exposure on an exchange platform using currency futures.

Since he is concerned that the value of USD will rise, he decides go long on currency futures; it means he purchases a USD/INR futures contract. This protects the student because strengthening of USD would lead to profit in the long futures position, which would effectively ensure that his loss in the physical market would be mitigated. The following figure and Exhibit explain the mechanics of hedging using currency futures.

Date	Spot Market	Futures Market
1-Mar-08	The current exchange rate is INR 40.26 per USD, therfore the current cost of 1000 USD in INR is **Rs. 40260**.	September USD contract is at INR 40.50. Price per contract is INR 40,500 (40.50*1000). The appropariate number of contract is 1. **Buy 1 Contracts for 40500**
15-Sep-08	The spot rate is 46.00. Buy the 1000 USD to enroll for the program. Cost in Rupees: 1000(46.00) = INR 46000	Sell 1 contract at the prevailing rate of USDINR 46.24, hence the value of the contract is INR 46240 (46.24*1000).

Analysis:

The enrolment ended up costing INR 46000 - INR 40260 = INR 5740 more

The profit on the futures transaction is:

INR 46240	(Sale price of futures)
(INR 40500)	(less - Buy price of futures)
INR 5740	Profit on futures

Return to hedge:

46000	(Cash Purchase)
5740	(Future gain)
40260	**(Return to hedge)**

Observation: Following a 14.25% rise in the spot price for USD (against INR), the US dollars are bought at the new, higher spot price; but profits on the hedge foster an effective exchange rate equal to the original hedge price.

Example 5: Retail Hedging – Remove Forex Risk while Investing Abroad

Let's say when USD/INR at 44.20, an active stock market investor decides to invest USD 200,000 for a period of six months in the S&P 500 Index with a perspective that the market will grow and his investment will fetch him a decent return. In Indian terms, the investment is about Rs. 8,840,000.

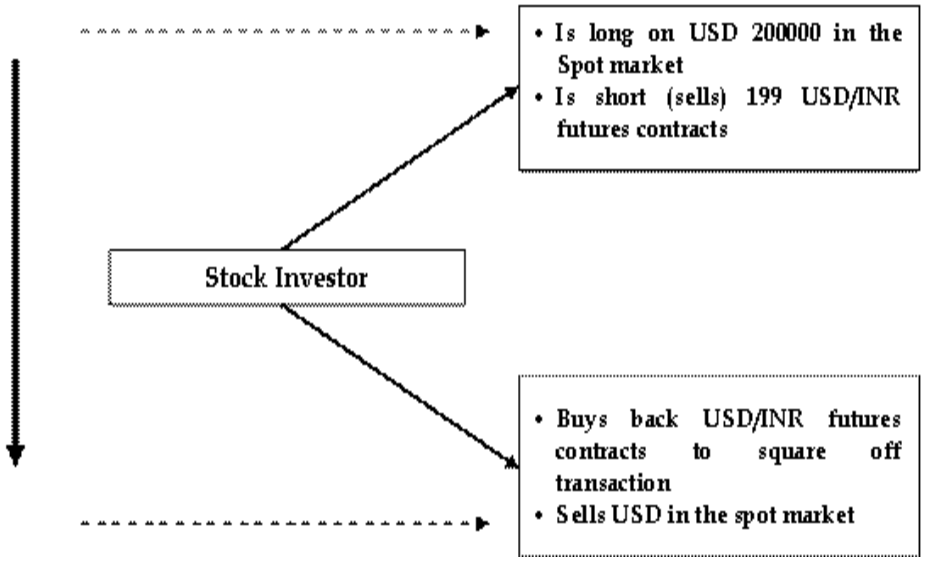
Let's say that after six months, as per his anticipation, the market wherein he has invested has appreciated by 10% and now his investment of USD 200,000 stands at USD 220,000. Having earned a decent return the investor decides to square off all his positions and bring back his proceeds to India.

The current USD/INR exchange rate stands at 40.75 and his investment of USD 220,000 in Indian term stands at Rs. 8,965,000. Thus fetching him a meager return of 1.41% as compared to return of 10% in USD, this is because during the same period USD has depreciated by 7.81% against the INR and therefore the poor return. Consequently, even after gauging the overseas stock market movement correctly he is not able to earn the desired overseas return because he was not able to capture and manage his currency exposure.

Let's presume the same Indian investor pre-empted that there is good probability that the USD will weaken given the then market fundamentals and has decided to hedge his exposure on an exchange platform using currency futures.

Since he was concerned that the value of USD will fall he decides go short on currency futures, it means he sells a USD/INR futures contract. This protects the investor because weakening of USD would lead to profit in

the short futures position, which would effectively ensure that his loss in the investment abroad would be mitigated. The following figure and Exhibit explain the mechanics of hedging using currency futures.



Date	Spot Market	Futures Market
Leg I	The current exchange rate is INR 44.20 per USD, therefore the current investment of USD 200000 in INR is **Rs. 8840000**.	USDINR contract is at INR 44.50. Price per contract is INR 44,500 (44.50*1000). The approapriate number of contract he should sell is 8840000/44500 = 199. **Sell 199 Contracts for 8855500.**
Leg II	The spot rate is 40.75. Receive 220000 USD for his investmen. Revenues in Rupees: 220000(40.75) = INR 8965000	Buy back 199 contract at the prevailing rate of USDINR 41.05. Price per contract is INR 41050 (41.05*1000), hence the value of 199 contracts is INR 8168950.

Analysis:

The investment ended up garnering INR 9724000 - INR 8965000 = INR 759000 Less

The profit on the futures transaction is:

INR 8855500	(Sale price of futures)
(INR 8168950)	(less - Buy price of futures)
INR 686550	Profit on futures

Mitigating Forex Risk - Fetchiong Comparable Stock Market Return:

8965000	(Stock Proceedings)
686550	(Future gain)
9651550	**(Return to hedge)**

Observation – Had the exchange rate been stagnant at 44.20 during the six-month investment period the investment in Rupee terms would have grown from INR 884,00,000 to INR 9,724,000 fetching him a return of INR 8,84,000 in absolute terms. However, during the investment period, the USD has depreciated by 7.81% and hence his investment has earned him a return of only INR 125,000. Had he hedged his exposure using

currency futures, he could have mitigated a major portion of his risk as explained in the above example; he is not able to mitigate his risk completely even with the basis remaining the same because during the holding period his investment has grown from USD 2,00,000 to USD 2,20,000. The exhibit below gives the tabular representation of the portfolio with and without currency hedging:

Portfolio Return	
Without Hedging	**Hedging with Currency Futures**
Invests $ 200,000 (USD = Rs. 44.20)	Invests and sells 199 futures contracts @ Rs. 44.50
Investment grows to $ 220,000 after six months	After six months, squares off futures position @ Rs. 41.05
Offloads investment when the exchange rate is USD = Rs. 40.75	Return in Rs. Terms:
Return in $ terms = 10%	On investment = Rs. 1,25,000
Return in Rs. Terms = 1.41%	On futures = Rs. 686550
i.e. (210,000 x 44) – (200,000 x 45)	Net return = 9.18%

Hence a hedging using currency future has provided him better return as compared to the one without hedging. Also, it is not possible for every investor to gauge both the markets correctly, as in this case the investor may be an intelligent and well informed stock investor, but he may not be equally good when it comes to currency market; also it is not necessary that both markets move in the direction of the investor's advantage. So it's advisable that if an investor is taking a bet in one market, he will be better off if he can mitigate the risk related to other markets.

Example 6: Retail Hedging – Remove Forex Risk while Trading in Commodity Market

Gold prices on Exchanges in India have a very high correlation with the COMEX gold prices. That is, Indian gold prices decrease with the decrease in COMEX prices and increase with the increase in COMEX prices. But it doesn't mean the increase and decrease will be same in Indian exchanges in percentage terms as that in COMEX. This is because in both the markets the quotation is in different currency, for COMEX gold is quoted in USD and in India gold is quoted in INR. Hence any fluctuation in USD/INR exchange rate will have an impact on profit margins of corporates/clients having positions in Indian Gold Futures. By hedging USD/INR through currency futures, one can offset the deviation caused in COMEX and Indian prices. The following example explains the same.

Let's say with gold trading on COMEX at USD 900/Troy Ounce (Oz) with USD/INR at 40.00, an active commodity investor, realizing the underlying fundamentals, decides that it's a good time to sell gold futures. On the basis of this perspective, he decides to sell 1 Indian Gold Future contract @ Rs. 11,580/10 gm.

Let's say after 20 days, as per his expectation, gold prices did decline drastically on COMEX platform and gold was now trading at USD 800/oz, a fall of 11.11%. However, in India gold future was trading @ Rs. 11,317/10 gm, which is a profit of 2.27%. This is because during the same period the INR has depreciated against the USD by 10% and the prevalent exchange rate was 44.00.

Had the USD/INR exchange rate remained constant at 40.00, the price after 20 days on the Indian exchange platform would have been Rs. 10,290 and thus profit realization would have been the same 11%.

Let's presume the same Indian investor pre-empted that there is good probability that the INR will weaken given the then market fundamentals and has decided to hedge his exposure on an exchange platform using currency futures.

Since he was concerned that the value of USD will rise, he decides go long on currency futures, it means he buys a USD/INR futures contract. This protects the investor because strengthening of USD would lead to profit in the long futures position, which would effectively ensure that his loss in the commodity trading would be mitigated.

4.5 TRADING SPREADS USING CURRENCY FUTURES

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Spread refers to difference in prices of two futures contracts. A good understanding of spread relation in terms of pair spread is essential to earn profit. Considerable knowledge of a particular currency pair is also necessary to enable the trader to use spread trading strategy.

Spread movement is based on following factors:

- Interest Rate Differentials
- Liquidity in Banking System
- Monetary Policy Decisions (Repo, Reverse Repo and CRR)
- Inflation

Intra-Currency Pair Spread: An intra-currency pair spread consists of one long futures and one short futures contract. Both have the same underlying but different maturities.

Inter-Currency Pair Spread: An inter–currency pair spread is a long-short position in futures on different underlying currency pairs. Both typically have the same maturity.

Example: A person is an active trader in the currency futures market. In September 2008, he gets an opportunity for spread trading in currency futures. He is of the view that in the current environment of high inflation and high interest rate the premium will move higher and hence USD will appreciate far more than the indication in the current quotes, i.e. spread will widen. On the basis of his views, he decides to buy December currency futures at 47.00 and at the same time sell October futures contract at 46.80; the spread between the two contracts is 0.20.

Let's say after 30 days the spread widens as per his expectation and now the October futures contract is trading at 46.90 and December futures contract is trading at 47.25, the spread now stands at 0.35. He decides to square off his position making a gain of Rs. 150 (0.35 – 0.20 = 0.15 x $1000) per contract.

4.6 ARBITRAGE

Arbitrage means locking in a profit by simultaneously entering into transactions in two or more markets. If the relation between forward prices and futures prices differs, it gives rise to arbitrage opportunities. Difference in the equilibrium prices determined by the demand and supply at two different markets also gives opportunities to arbitrage.

Example – Let's say the spot rate for USD/INR is quoted @ Rs. 44.325 and one month forward is quoted at 3 paisa premium to spot @ 44.3550 while at the same time one month currency futures is trading @ Rs. 44.4625. An active arbitrager realizes that there is an arbitrage opportunity as the one month futures price is more than the one month forward price. He implements the arbitrage trade where he;

- Sells in futures @ 44.4625 levels (1 month)

- Buys in forward @ 44.3250 + 3 paisa premium = 44.3550 (1 month) with the same term period
- On the date of future expiry he buys in forward and delivers the same on exchange platform
- In a process, he makes a Net Gain of 44.4625-44.3550 = 0.1075
- i.e. Approx 11 Paisa arbitrage
- Profit per contract = 107.50 (0.1075x1000)

Observation – The discrepancies in the prices between the two markets have given an opportunity to implement a lower risk arbitrage. As more and more market players will realize this opportunity, they may also implement the arbitrage strategy and in the process will enable market to come to a level of equilibrium.

Conclusion

It must be noted that though the above examples illustrate how a hedger can successfully avoid negative outcomes by taking an opposite position in FX futures, it is also possible, that on occasion the FX fluctuations may have been beneficial to the hedger had he not hedged his position and taking a hedge may have reduced his windfall gains from these FX fluctuations. FX hedging may not always make the hedger better-off but it helps him to avoid the risk (uncertainty) and lets him focus on his core competencies instead.

Many people are attracted toward futures market speculation after hearing stories about the amount of money that can be made by trading futures. While there are success stories, and many people have achieved a more modest level of success in futures trading, the keys to their success are typically hard work, a disciplined approach, and a dedication to master their trade.

An investor should always remember the trade that he has initiated has the equal probability of going wrong and must therefore apply meticulous risk management practices to ensure the safety of his hard-earned capital. If you intend to follow this path, this market is the place to be.

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CHAPTER 5 TRADING

In this chapter we shall take a brief look at the trading system for the Currency Derivatives segment. However, the best way to get a feel of the trading system is to actually watch the screen and observe trading.

5.1 CURRENCY FUTURES CONTRACT SPECIFICATION

Contract specification: USD INR Currency Derivatives	
Underlying	Rate of exchange between one USD and INR
Contract Size	USD 1000
Tick Size	Re. 0.0025
Price Bands	Not applicable
Trading Cycle	The futures contracts will have a maximum of twelve months trading cycle. New contract will be introduced following the Expiry of current month contract.
Expiry Day	Last working day of the month (subject to holiday calendars)
Last Trading Day	Two working days prior to the last business day of the expiry month at 12 noon.
Settlement Basis	Daily mark to market settlement will be on a T +1 basis and final settlement will be cash settled on T+2 basis.
Settlement Price	Daily mark to market settlement price will be the closing price of the futures contracts for the trading day and the final settlement price shall be the RBI reference rate for last trading date of the contract.
Settlement	Cash settled
Final Settlement Price	The reference rate fixed by RBI two working days prior to the final settlement date.
Final Settlement Day	Last working day (excluding Saturdays) of the expiry month. The last working day will be the same as that for Interbank Settlements in Mumbai.

Market Timing is from 9 am to 5 pm.

5.2 TRADING PARAMETERS

i) Base Price

Base price of the USD/INR Futures Contracts on the first day shall be the theoretical futures price. The base price of the Contracts on subsequent trading days will be the daily settlement price of the USD/INR futures contracts.

ii) Closing Price

The closing price for a futures contract is currently calculated as the last half an hour weighted average price of the contract. In case a futures contract is not traded on a day, or not traded during the last half hour, a 'theoretical settlement price' is computed as may be decided by the relevant authority from time to time.

Dissemination of Open, High, Low, and Last-Traded Prices

During a trading session, the Exchange continuously disseminates open, high, low, and last-traded prices through its trading system on real time basis.

5.3 TENORS OF FUTURES CONTRACT

The tenor of a contract means the period when the contract will be available for futures trading, i.e. the period between the start of trading and the day it expires. This period is also known as the "trading cycle" of the contract. The currency future contract will be available for trading with a maximum maturity of 12 months.

Expiry Date

All contracts expire on the last working day (excluding Saturdays) of the contract months. The last day for the trading of the contract shall be two working days prior to the final settlement.

Final Settlement Rate

Final Settlement rate would be the Reserve Bank (RBI) Reference rate for the date of expiry.

5.4 TRADER WORKSTATION SCREEN (TWS)

Each Exchange has its own unique format of the Trader Workstation Screen and the best way to familiarize oneself with the screen and its various segments would be to actually spend time studying a live screen. Information regarding the TWS can also be obtained from exchange websites.

5.5 ENTITIES IN THE TRADING SYSTEM

There are five entities in the trading system: Trading members, clearing members, trading-cum-clearing members, professional clearing members and participants.

1) *Trading Members (TM):* Trading members are members of an authorized Exchange. They can trade either on their own account or on behalf of their clients including participants. The exchange assigns a trading member ID to each trading member. Each trading member can have more than one user. The number of users allowed for each trading member is notified by the exchange from time to time. Each user of a trading member must be registered with the exchange and is assigned a unique user ID. The unique trading member ID functions as a reference for all orders/trades of different users. This ID is common for all users of a particular trading member. It is the responsibility of the trading member to maintain adequate control over persons having access to the firm's User ID.

2) *Clearing Members (CM):* Clearing members are members of the Clearing Corporation. They carry out risk management activities and confirmation/inquiry of participant trades through the trading system.

3) *Trading-cum-Clearing Member (TCM)*: A member with a right to trade on its own account as well as on account of its clients. He can clear and settle the trades for self and for others through the Clearing House.

4) *Professional Clearing Members (PCM):* A professional clearing member is a clearing member who is not a trading member. Typically, banks and custodians become professional clearing members and clear and settle for their trading members and participants.

5) *Participants*: A participant is a client of a trading member- like financial institutions. These clients may trade through multiple trading members but settle through a single clearing member.

5.6 TYPES OF ORDERS

The system allows the trading members to enter orders with various conditions attached to them as per their requirements. These conditions are broadly divided into the following categories:

- Time conditions
- Price conditions
- Other conditions

Several combinations of the above are allowed thereby providing enormous flexibility to the users. The order types and conditions are summarized below.

- Time conditions

  - *Day order:* A day order, as the name suggests is an order which is valid for the day on which it is entered. If the order is not executed during the day, the system cancels the order automatically at the end of the day.

  - *Immediate or Cancel (IOC):* An IOC order allows the user to buy or sell a contract as soon as the order is released into the system, failing which the order is cancelled from the system. Partial match is possible for the order, and the unmatched portion of the order is cancelled immediately.

- Price condition

  - *Market price:* Market orders are orders for which no price is specified at the time the order is entered (i.e. price is market price). For such orders, the trading system determines the price.

  - *Limit price:* An order to a broker to buy a specified quantity of a security at or below a specified price, or to sell it at or above a specified price (called the limit price). This ensures that a person will never pay more for the futures contract than whatever price is set as his/her limit. It is also the price of orders after triggering from stop-loss book.

    Stop-loss: This facility allows the user to release an order into the system, after the market price of the security reaches or crosses a threshold price e.g. if for stop-loss buy order, the trigger is Rs. 42.0025, the limit price is Rs. 42.2575 , then this order is released into the system once the market price reaches or exceeds Rs. 42.0025. This order is added to the regular lot book with time of triggering as the time stamp, as a limit order of Rs. 42.2575.

Thus, for the stop loss buy order, the trigger price has to be less than the limit price and for the stop-loss sell order, the trigger price has to be greater than the limit price.

- Other conditions

  - *Pro:* Pro means that the orders are entered on the trading member's own account.

  - *Cli:* Cli means that the trading member enters the orders on behalf of a client.

In exchange traded derivative contracts, the Clearing Corporation acts as a central counterparty to all trades and performs full novation. The risk to the clearing corporation can only be taken care of through a stringent margining framework. Also, since derivatives are leveraged instruments, margins also act as a cost and discourage excessive speculation. A robust risk management system should therefore, not only impose margins on the members of the clearing corporation but also enforce collection of margins from the clients.

Price Limit Circuit Filter

There shall be no daily price bands applicable for Currency Futures contracts. However in order to prevent erroneous order entry by members, operating ranges will be kept at +/-3% of the base price for contracts with tenure upto 6 months and +/-5% for contracts with tenure greater than 6 months. In respect of orders which have come under price freeze, the members would be required to confirm to the Exchange that there is no inadvertent error in the order entry and that the order is genuine. On such confirmation, the Exchange may take appropriate action.

5.7 MARK-to-MARKET

During the trading session, the system keeps track of losses, both notional and booked, incurred by every member up to the last executed trade. This is calculated by the system on a real-time basis by way of computing the difference between the actual trade price of a member and the daily settlement price of the market. Daily settlement price on a trading day is also the closing price of the respective futures contracts on such day. Such calculation happens for every member after execution of each and every trade. The maximum loss limit, which the system allows a member to sustain on a real-time basis, is 75% of the total deposit. Every time such loss amount goes beyond the levels of 60%, 75%, or 90% of the prior mentioned maximum loss limit, the member gets a warning signal. Thereafter, when the loss crosses the 75% of the total deposit limit, the member is suspended by the system. In such calculations, there is no allowance given in respect of profits made by such members in a different contract. This is monitored by the system to curb any default in the process of day trading.

5.8 POSITION LIMITS

In order to avoid building up of huge open positions, the regulator has specified the maximum allowable open position limit across all members of the Exchange.

Rules with respect to monitoring and enforcement of position limits in the currency futures market:

- Positions during the day are monitored based on the total open interest at the end of the previous day's trade.
- The above monitoring is for both client level positions (based on the unique client code) and for trading member level positions.
- The Exchange treats violation of position limits as an input for further surveillance action. Upon detecting large open positions, the Exchange conducts detailed analysis based on the overall nature of positions,

the trading strategy, positions in the underlying market, positions of related entities (concept of persons acting in concert would be applied), etc.

- The violators of position limits are accountable for their large positions and are asked to submit detailed information pertaining to their trading activities whenever the information is sought by the Exchange. The clearing member is accountable for positions of all trading members and clients of trading members clearing through him. Similarly, the trading member is accountable for the positions of his clients. The Exchange also calls for information directly from the client itself.

The following position limits would be applicable in the currency futures market:

- Client Level: The gross open position of the client across all contracts should not exceed 6% of the total open interest or USD 10 million whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.
- Non Bank Trading Member Level: The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or USD 50 million whichever is higher. However, the gross open position of a Trading Member, which is a bank, across all contracts, shall not exceed 15% of the total open interest or USD 100 million, whichever is higher.
- Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him are within the limits specified above.

Surveillance System

The surveillance systems of the exchanges are designed keeping in view all the relevant aspects, including the following:

i. The alerts in the online surveillance system automatically generate material aberrations from normal activity.
ii. The surveillance systems and processes are able to:
    - Monitor open interest, cost of carry, and volatility.
    - Monitor closing prices.
    - Capture and process client level details.
    - Develop databases of trading activity by brokers as well as clients.
    - Generate trading pattern by a broker over a period of time or by a client / group of clients over a period of time.
iii. The information and feedback received from member inspections are vital inputs for effective surveillance. For this, member inspections are taken up in a rational manner keeping in view the level of trading activity, client profile, number and nature of complaints received against the member, history of risk management related defaults and regulatory violations, etc. Information obtained through member inspections is made available to the monitoring/ surveillance departments of Exchanges.
iv. The Exchange calls for information from members in a standard form, and preferably in electronic form, to facilitate faster analysis as well as building up of databases.

Rules, regulations and bye laws of Exchange

Rules, regulation and bye-laws of the Exchange govern the functions and processes of the Exchange. They guide broader aspects, like constitution and composition of the Board, the Executive committee, types of membership, criteria and eligibility of membership, to operational issues, like, how transaction is entered into and how it is settled. It also explains process of arbitration, investors' protection and compensation, and penalty for violation of any of the rules, regulations and bye-laws of the Exchange.

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CHAPTER 6 CLEARING, SETTLEMENT AND RISK MANAGEMENT

Clearing Corporation undertakes clearing and settlement of all trades executed on the Currency Derivatives Segment of the exchange. It also acts as legal counterparty to all trades on the Currency Derivatives segment and guarantees their financial settlement.

6.1 CLEARING ENTITIES

Clearing and settlement activities in the Currency Derivatives segment are undertaken by a Clearing Corporation with the help of the following entities:

Clearing members

In the Currency Derivatives segment, trading-cum-clearing member, clear and settle their own trades as well as trades of other trading members (TMs). Besides, there is a special category of members, called professional clearing members (PCM) who clear and settle trades executed by TMs. The members clearing their own trades and trades of others, and the PCMs are required to bring in additional security deposits in respect of every TM whose trades they undertake to clear and settle.

Clearing banks

Funds settlement takes place through clearing banks. For the purpose of settlement all clearing members are required to open a separate bank account with the Clearing Corporation designated clearing bank for Currency Derivatives segment. The Clearing and Settlement process comprises of the following three main activities:

1) Clearing
2) Settlement
3) Risk Management

6.2 CLEARING MECHANISM

The clearing mechanism essentially involves working out open positions and obligations of clearing (trading-cum-clearing/professional clearing) members. This position is considered for exposure and daily margin purposes. The open positions of Clearing Members (CMs) are arrived at by aggregating the open positions of all the TMs and all custodial participants clearing through him, in contracts in which they have traded. A TM's open position is arrived at as the summation of his proprietary open position and clients' open positions, in the contracts in which he has traded. While entering orders on the trading system, TMs are required to identify the orders, whether proprietary (if they are their own trades) or client (if entered on behalf of clients) through 'Pro/Cli' indicator provided in the order entry screen. Proprietary positions are calculated on net basis (buy - sell) for each contract. Clients' positions are arrived at by summing together net (buy - sell) positions of each individual client. A TM's open position is the sum of proprietary open position, client open long position and client open short position.

Consider the following example given from Table 6.1 to Table 6.4. The proprietary open position on day 1 is simply = Buy - Sell = 20 - 40 = 20 short. The open position for client A = Buy (O) – Sell (C) = 40 - 20 = 20 long, i.e. he has a long position of 20 units. The open position for Client B = Sell (O) – Buy (C) = 60 - 20 = 40 short, i.e. he has a short position of 40 contracts. Now the total open position of the trading member ABC Ltd. at end

of day 1 is 20 (his proprietary open position on net basis) plus 60 (the Client open positions on gross basis), i.e. 80.

Table 6.1 Proprietary position of trading member ABC Ltd. on Day 1

Trading member ABC Ltd. trades for himself and two of his clients. The table shows his proprietary position. Note: A buy position '20000@ 40.0000"means 20 contracts bought at the rate of Rs. 40.0000.

Trading member ABC Ltd.		
Proprietary position	Buy 20*1000*40.0000	Sell 40*1000*40.1500

Buy:	Sell:
20 = number of contracts	40 = number of contracts
1000 = contract size (USD)	1000 = contract size (USD)
40.0000 = price (Rs.)	40.1500 = price (Rs.)

Table 6.2 Client position of trading member ABC Ltd. on Day 1

Trading member ABC Ltd. trades for himself and two of his clients. The table shows his client position.

Trading member ABC Ltd.				
Client position	Buy Open	Sell Close	Sell Open	Buy Close
Client A	40*1000*40.0000	20*1000*39.0500		
Client B			60*1000*39.1000	20*1000*40.0000

Table 6.3 Proprietary position of trading member ABC Ltd. on Day 2

Assume that the position on Day 1 is carried forward to the next trading day and the following trades are also executed.

Trading member ABC Ltd.		
Proprietary position	Buy 20*1000*40.0000	Sell 40*1000*40.1000

The proprietary open position at end of day 1 is 20 short. The end of day open position for proprietary trades undertaken on day 2 is 20 short. Hence the net open proprietary position at the end of day 2 is 40 short. Similarly, Client A's open position at the end of day 1 is 20 long. The end of day open position for trades done by Client A on day 2 is 20 long. Hence the net open position for Client A at the end of day 2 is 40 long. Client B's open position at the end of day 1 is 40 short. The end of day open position for trades done by Client B on day 2 is 20 short. Hence the net open position for Client B at the end of day 2 is 60 short. The net open position for the trading member at the end of day 2 is sum of the proprietary open position and client open positions. It works out to be 40 + 40 + 60, i.e. 140 (gross open positions considered).

NOTE: All open positions will be multiplied by 1000 (contract size in USD) to arrive at the open position in USD terms

Table 6.4 Client position of trading member ABC Ltd. on Day 2

Trading member ABC Ltd. trades for himself and two of his clients. The table shows his client position on Day 2.

Trading member ABC Ltd.				
Client position	Buy Open	Sell Close	Sell Open	Buy Close
Client A	40*1000*40.0000	20*1000*40.1000		
Client B			60*1000*40.0000	40*1000*40.1000

The following table illustrates determination of open position of a CM, who clears for two TMs having two clients.

Table 6.5 Determination of open position of a clearing member

TMs clearing through CM	Proprietary trades			Trades: Client 1			Trades: Client 2			Open position	
	Buy	Sell	Net	Buy	Sell	Net	Buy	Sell	Net	Long	Short
ABC	40	20	20	30	10	20	40	20	20	60	-
PQR	20	30	-10	20	10	10	10	20	-10	10	20
Total	60	50	20 -10	50	20	30	50	40	20 -10	70	20

6.3 SETTLEMENT MECHANISM

All futures contracts are cash settled, i.e. through exchange of cash in Indian Rupees. The settlement amount for a CM is netted across all their TMs/clients, with respect to their obligations on Mark-to-Market (MTM) settlement.

Settlement of currency futures contracts

Currency futures contracts have two types of settlements, the MTM settlement which happens on a continuous basis at the end of each day, and the final settlement which happens on the last trading day of the futures contract.

Mark-to-Market settlement (MTM Settlement):

All futures contracts for each member are marked to market to the daily settlement price of the relevant futures contract at the end of each day. The profits/losses are computed as the difference between:

1. The trade price and the day's settlement price for contracts executed during the day but not squared up.

2. The previous day's settlement price and the current day's settlement price for brought forward contracts.

3. The buy price and the sell price for contracts executed during the day and squared up.

Table 6.6 explains the MTM calculation for a member. The settlement price for the contract for today is assumed to be 43.00

The CMs who have a loss are required to pay the mark-to-market (MTM) loss amount in cash which in turn is passed on to the CMs who have made a MTM profit. This is known as daily mark-to-market settlement. CMs are responsible to collect and settle the daily MTM profits/losses incurred by the TMs and their clients clearing and settling through them. Similarly, TMs are responsible to collect/pay losses/profits from/to their clients by the next day. The pay-in and pay-out of the mark-to-market settlement are effected on the day following the trade day. In case a futures contract is not traded on a day, or not traded during the last half hour, a 'theoretical settlement price' is computed.

After completion of daily settlement computation, all the open positions are reset to the daily settlement price. Such positions become the open positions for the next day.

Table 6.6 Computation of MTM at the end of the day

The table gives the MTM calculated on various positions. The MTM settlement on the brought forward contract is the difference between the previous day's settlement price of Rs.40.0000 and today's settlement price of Rs.43.0000. Hence on account of the position brought forward, the MTM shows a profit of Rs.30000. For contracts executed during the day, the difference between the buy price and the sell price determines the MTM. In this example, 20 contracts are bought @ Rs. 40.0000 and 10 contracts sold @ Rs. 42.0000 during the day. Hence the MTM for the position closed during the day shows a profit of Rs.20000. Finally, the open position of contracts traded during the day, is marked to market at the day's settlement price and the profit of Rs.30000 credited to the MTM account. So the MTM account shows a profit of Rs. 80,000.

Trade details	Bought/sold	Settlement price (Rs.)	MTM settlement (Rs.)
Brought forward from previous day	Bought 10*1000*40.0000	43.0000	30*1000

Traded during day : Bought Sold	20*1000*40.0000 10*1000*42.0000		20*1000
Open position (not squared up)	Bought 10*1000*40.0000	43.0000	30*1000
Total			80*1000

Final settlement for futures

On the last trading day of the futures contracts, after the close of trading hours, the Clearing Corporation marks all positions of a CM to the final settlement price and the resulting profit/loss is settled in cash. Final settlement loss/profit amount is debited/ credited to the relevant CM's clearing bank account on T+2 working day following last trading day of the contract (Contract expiry Day).

Settlement prices for futures

Daily settlement price on a trading day is the closing price of the respective futures contracts on such day. The closing price for a futures contract is currently calculated as the last half an hour weighted average price of the contract in the Currency Derivatives Segment of the Exchange. The final settlement price is the RBI reference rate for the last trading day of the futures contract. All open positions shall be marked to market on the final settlement price. Such marked to market profit / loss shall be paid to / received from clearing members.

6.4 RISK MANAGEMENT MEASURES

Every exchange has a comprehensive risk containment mechanism for the Currency Derivatives segment. The salient features of risk containment mechanism on the Currency Derivatives segment are:

1. The financial soundness of the members is the key to risk management. Therefore, the requirements for membership in terms of capital adequacy (net worth, security deposits) are quite stringent.

2. Upfront initial margin is charged for all the open positions of a CM. It specifies the initial margin requirements for each futures contract on a daily basis. It also follows a value-at-risk (VaR) based margining through SPAN® (Standard Portfolio Analysis of Risk). The CM in turn collects the initial margin from the TMs and their respective clients.

3. The open positions of the members are marked to market based on contract settlement price for each contract. The difference is settled in cash on a T+1 basis.

4. The on-line position monitoring system monitors the member open positions and margins on a real-time basis vis-à-vis the deposits provided by the CM or the limits set for the TM by the CM. The on-line position monitoring system generates alerts whenever the margins of a member reaches the predetermined percentage of the capital deposited by the CM or limits set for the TM by the CM. The Clearing Corporation monitors the CMs for initial margin and extreme loss margin violations, while TMs are monitored for initial margin violation.

5. CMs are provided with a trading terminal for the purpose of monitoring the open positions of all the TMs clearing and settling through them. A CM may set limits for a TM clearing and settling through him. The Clearing Corporation assists the CM to monitor the intra-day limits set up by a CM and

whenever a TM exceeds the limits, it stops that particular TM from further trading.

6. A member is alerted of his position to enable him to adjust his position or bring in additional capital. Margin violations result in withdrawal of trading facility for all TMs of a CM in case of a violation by the CM.

7. Separate settlement guarantee funds for this segment have been created by exchanges.

The most critical component of risk containment mechanism for the Currency Derivatives segment is the margining system and on-line position monitoring. The actual position monitoring and margining is carried out on-line through Exchange Risk Management Systems that use SPAN® (Standard Portfolio Analysis of Risk) methodology, and compute on-line margins, based on the parameters defined by SEBI.

6.5 MARGIN REQUIREMENTS

The initial security deposit paid by a member is considered as his initial margin for the purpose of allowable exposure limits. Initially, every member is allowed to take exposures up to the level permissible on the basis of the initial deposit.

However, if a member wishes to create more exposure, he has to deposit additional margins.

If there is surplus deposit lying with the Exchanges toward margins, it is not refunded to the member unless a written request is received from the member for refund. However, the member receives additional exposure limit on account of such additional / surplus deposit. In case of receipt of written request for refund of additional deposit, the same may be refunded within 3 working days.

The different types of margins collected by the Exchanges are as follows:

Initial Margin

The Initial Margin requirement is based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% Value at Risk (VaR) over a one-day horizon. In order to achieve this, the price scan range is fixed at 3.5 standard deviation. The initial margin so computed would be subject to a minimum of 1.75% on the first day of currency futures trading and 1% thereafter. The initial margin shall be deducted from the liquid networth of the clearing member on an online, real-time basis.

Portfolio Based Margin

The Standard Portfolio Analysis of Risk (SPAN) methodology is adopted to take an integrated view of the risk involved in the portfolio of each individual client comprising his positions in futures contracts across different maturities. The client-wise margin is grossed across various clients at the Trading / Clearing Member level. The proprietary positions of the Trading / Clearing Member are treated as that of a client.

Real-Time Computation

The computation of worst scenario loss has two components. The first is the valuation of the portfolio under the various scenarios of price changes. At the second stage, these scenario contract values are applied to the actual portfolio positions to compute the portfolio values and the initial margin. The Exchange updates the scenario contract values at least 5 times in the day, which is carried out by taking the closing price of the

previous day at the start of trading, at the prices at 11:00 a.m., 12:30 p.m., 2:00 p.m, and at the end of the trading session. The latest available scenario contract values are applied to member/client portfolios on a real-time basis.

Calendar Spread Margins

A currency futures position at one maturity which is hedged by an offsetting position at a different maturity is treated as a calendar spread. The calendar spread margin is at a value of Rs. 250 for all months of spread. The benefit for a calendar spread continues till expiry of the near-month contract. For a calendar spread position, the extreme loss margin is charged on one-third of the mark-to-market value of the far-month contract.

Extreme Loss Margin

Extreme loss margin is computed at 1% on the mark-to-market value of the Gross Open Position. It shall be deducted from the liquid assets of the Clearing Member.

Liquid Networth

The initial margin and the extreme loss margin are deducted from the liquid assets of the clearing member. The clearing member's liquid networth after adjusting for the initial margin and extreme loss margin requirements must be at least Rs. 50 lakhs at all points in time. The minimum liquid networth is treated as a capital cushion for days of unforeseen market volatility.

Liquid Assets

The liquid assets for trading in currency futures are maintained separately in the currency futures segment of the clearing corporation. However, the permissible liquid assets, the applicable haircuts and minimum cash equivalent norms would be same as that are applicable for the equity derivatives segment.

Mark-to-Market Settlement

The mark-to-market gains and losses are settled in cash before the start of trading on T+1 day. If mark-to-market obligations are not collected before start of the next day's trading, the clearing corporation collects correspondingly higher initial margin to cover the potential for losses over the time elapsed in the collection of margins.

Margin collection and enforcement

The client margins (initial margin, extreme-loss margin, calendar-spread margin, and mark-to-market settlements) are compulsorily collected and reported to the Exchange by the members. The Exchange imposes stringent penalty on members who do not collect margins from their clients. The Exchange also conducts regular inspections to ensure margin collection from clients.

The various scenarios with respect to pay in / pay out and margin payable as reflected in the end-of-day report and its impact on the system are as follows:

- If a member has payable obligation towards pay-in as well as margins, he will not be able to place his orders the next day morning (though he would be able to log in), unless he pays at least the margin payable amount immediately. If he pays the margin demanded, his square-off mode is revoked

immediately, but if he also wants to increase his exposure, he has to pay additional margins for increasing his exposure, failing which he will be allowed to square off only.

- If a member has only pay-in obligation but no payment required towards margins, he will be allowed to trade at the commencement of the trading session the next day morning, provided that his available deposit would be reduced by the amount of pay-in. Thereafter, as soon as the pay-in is complete and the confirmation file is received from the bank, his blocked limit is released immediately.
- If a member is obligated to pay margins, while in respect of pay-in he has a receivable amount, he will be allowed to log into the system and have a view only facility. He will not be allowed to submit orders unless he pays fresh margins equivalent to his obligation plus additional margins to create fresh positions. However, if a member pays margins only to the extent of his actual margin obligation, he will be allowed by the system only to square off his positions, but as soon as he increases his positions, he will again be suspended from trading.

Safeguarding Client's Money

The Clearing Corporation segregates the margins deposited by the Clearing Members for trades on their own account from the margins deposited with it on client account. The margins deposited on client account are not utilized for fulfilling the dues that a Clearing Member may owe the Clearing Corporation in respect of trades on the member's own account. The client's money is to be held in trust for client purpose only. The following process is adopted for segregating the client's money vis-à-vis the clearing member's money:

- At the time of opening a position, the member indicates whether it is a client or proprietary position.
- Margins across the various clients of a member are collected on a gross basis and should not be netted off
- When a position is closed, the member indicates whether it was a client or his own position which is being closed.
- In the case of default, the margin paid on the proprietary position is used by the Clearing Corporation for realizing its dues from the member.

Periodic Risk Evaluation Report

The Clearing Corporation of the Exchange, on an ongoing basis and at least once in every six months, conducts back-testing of the margins collected vis-à-vis the actual price changes. A copy of the study is submitted to SEBI along with suggestions on changes to the risk containment measures, if any.

Surveillance

The exchanges as first-level regulators have an online surveillance capability that monitors positions, prices, and volumes in real time so as to deter market manipulation.

Unique Client Code (UCC)

The Exchange ensures that each client is assigned a client code that is unique across all members. The unique client code is assigned with the use of Income Tax Permanent Account Number (PAN) number.

CHAPTER 7 REGULATORY FRAMEWORK FOR CURRENCY DERIVATIVES

The Indian economy is integrating at a fast pace with the rest of the world. Indian Financial Markets have also been growing significantly. The average daily turnover in the foreign exchange market increased from US $ 23.7 billion in March 2006 to US $ 34.0 billion in March 2007 in consonance with the increase in foreign exchange transactions. Although liberalization helped the Indian foreign exchange markets in various ways, extensive fluctuations of exchange rate also occurred. These issues have attracted a great deal of interest from policy-makers and investors. Hence in the context of upgrading the Indian foreign exchange market to international standards, a well-developed foreign exchange derivative market (both OTC as well as Exchange Traded) is required.

The Committee on Fuller Capital Account Convertibility had recommended that currency futures may be introduced subject to risks being contained through proper trading mechanism, structure of contracts and regulatory environment. Accordingly, Reserve Bank of India in the Annual Policy Statement for the Year 2007-08 proposed to set up a Working Group on Currency Futures to study the international experience and suggest a suitable framework to operationalise the proposal, in line with the current legal and regulatory framework. The group has had extensive consultations with a cross section of market participants including bankers' associations, banks, brokers, and exchanges, both Indian and International.

7.1 SECURITIES CONTRACTS (REGULATION) ACT, 1956 [SC(R)A]

SC(R)A aims at preventing undesirable transactions in securities, by regulating the business of dealing therein and by providing for certain other matters connected therewith. This is the principal Act, which governs the trading of securities in India. The term "securities" has been defined in the SC(R)A. As per Section 2(h) of the Act, the 'Securities' include:

1. Shares, scrips, stocks, bonds, debentures, debenture stock or other marketable securities of a like nature in or of any incorporated company or other body corporate.
2. Derivatives
3. Units or any other instrument issued by any collective investment scheme to the investors in such schemes.
4. Government securities
5. Such other instruments as may be declared by the Central Government to be securities.
6. Rights or interests in securities.

"Derivative" is defined to include:

- A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.
- A contract which derives its value from the prices, or index of prices, of underlying securities.

Section 18A provides that notwithstanding anything contained in any other law for the time being in force, contracts in derivative shall be legal and valid if such contracts are:

- Traded on a recognized stock exchange
- Settled on the clearing house of the recognized stock exchanges, in accordance with the rules and bye–laws of such stock exchanges.

7.2 SECURITIES AND EXCHANGE BOARD OF INDIA ACT, 1992

SEBI Act, 1992 provides for establishment of Securities and Exchange Board of India (SEBI) with statutory powers for (a) protecting the interests of investors in securities (b) promoting the development of the securities market and (c) regulating the securities market. Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market.

SEBI has been obligated to perform the aforesaid functions by such measures as it thinks fit. In particular, it has powers for:

- regulating the business in stock exchanges and any other securities markets,
- registering and regulating the working of brokers, sub–brokers etc.,
- promoting and regulating self-regulatory organizations,
- prohibiting fraudulent and unfair trade practices,
- calling for information from, undertaking inspection, conducting inquiries and audits of the stock exchanges, mutual funds and other persons associated with the securities market and intermediaries and self–regulatory organizations in the securities market,
- performing such functions and exercising such powers under the Securities Contracts (Regulation) Act, 1956, as may be delegated to it by the Central Government.

7.3 RBI-SEBI STANDING TECHNICAL COMMITTEE ON EXCHANGE TRADED CURRENCY AND INTEREST RATE DERIVATIVES

With a view to enable entities to manage volatility in the currency market, RBI on April 20, 2007 issued comprehensive guidelines on the usage of foreign currency forwards, swaps and options in the OTC market. At the same time, RBI also set up an Internal Working Group to explore the advantages of introducing currency futures. The Report of the Internal Working Group of RBI submitted in April 2008, recommended the introduction of exchange traded currency futures. With the expected benefits of exchange traded currency futures, it was decided in a joint meeting of RBI and SEBI on February 28, 2008, that an RBI-SEBI Standing Technical Committee on Exchange Traded Currency and Interest Rate Derivatives would be constituted. To begin with, the Committee would evolve norms and oversee the implementation of Exchange traded currency futures. The Terms of Reference to the Committee were as under:

1. To coordinate the regulatory roles of RBI and SEBI in regard to trading of Currency and Interest Rate Futures on the Exchanges.
2. To suggest the eligibility norms for existing and new Exchanges for Currency and Interest Rate Futures trading.
3. To suggest eligibility criteria for the members of such exchanges.
4. To review product design, margin requirements and other risk mitigation measures on an ongoing basis
5. To suggest surveillance mechanism and dissemination of market information.
6. To consider microstructure issues, in the overall interest of financial stability.

This committee submitted its report on 29th May 2008.

The Report of the RBI-SEBI Standing Technical Committee on Exchange Traded Currency Futures is available in SEBI's web site.

The trading of derivatives is governed by the provisions contained in the SC(R)A, the SEBI Act, the rules and regulations framed thereunder and the rules and bye–laws of stock exchanges.

7.4 FOREIGN EXCHANGE MANAGEMENT ACT, 1999 - PROVISIONS

Thereafter, a series of regulatory measures were taken so as to implement the recommendations of both the committees and introduce Exchange Traded Currency Futures in the Indian market.

These regulatory measures are summarised below:

1) The Foreign Exchange Management (Foreign Exchange Derivative Contracts) Regulations, 2000 (Notification No. FEMA 25/RB-2000 dated May 3, 2000) was amended by RBI in exercise of the powers conferred by clause (h) of sub-section 2 of Section 47 of the Foreign Exchange Management Act, 1999 (Act 42 of 1999).

2) This amendment incorporated a new clause after clause (v) in regulation 2 reading "(va) 'Currency Futures' means a standardised foreign exchange derivative contract traded on a recognized stock exchange to buy or sell one currency against another on a specified future date, at a price specified on the date of contract, but does not include a forward contract."

3) A new regulation (5A) was inserted after regulation 5 of the principal regulation, reading:

> "5A. Permission to a person resident in India to enter into currency futures
>
> A person resident in India may enter into a currency futures in a stock exchange recognized under section 4 of the Securities Contract (Regulation) Act, 1956, to hedge an exposure to risk or otherwise, subject to such terms and conditions as may be set forth in the directions issued by the Reserve Bank of India from time to time."

4) These amendments have defined the meaning of 'Currency Futures' and also permitted a person resident in India to enter into a Currency Future Transaction to hedge on exposure to risk or otherwise.

5) On 6th August 2008 RBI had issued Notification No. FED.1/DG(SG)-2008 in exercise of powers conferred by section 45W of the Reserve Bank of India Act, 1934. The directions issued under this notification are titled "Currency Futures (Reserve Bank) Directions, 2008" which came into force w.e.f. 6th August, 2008. The salient features of this notification are:

   (i) Currency Futures means a standardised foreign exchange derivative contract traded on a recognized stock exchange to buy or sell one currency against another on a specified future date, at a price specified on the date of contract, but does not include a forward contract.

   (ii) Currency Futures market means the market in which currency futures are traded.

   (iii) Currency futures are permitted in US Dollar - Indian Rupee or any other currency pairs, as may be approved by the Reserve Bank from time to time.

   (iv) Only 'persons resident in India' may purchase or sell currency futures.

(v) The Standardized currency futures shall have the following features:

a. Only USD-INR contracts are allowed to be traded.
b. The size of each contract shall be USD 1000.
c. The contracts shall be quoted and settled in Indian Rupees.
d. The maturity of the contracts shall not exceed 12 months.

(vi) The Scheduled Banks have to obtain permission from the respective Regulatory Departments of RBI to participate in Currency Futures Markets.

(vii) Other regulated entities have to obtain concurrence from their respective regulators for participation in Currency Futures Markets.

(viii) The membership of the currency futures market of a recognised stock exchange shall be separate from the membership of the equity derivative segment or the cash segment.

(ix) Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' are permitted to become trading and clearing members of the currency futures segment of the recognized stock exchanges, on their own account and on behalf of their clients, subject to fulfilling the following minimum prudential requirements:

a) Minimum net worth of Rs. 500 crores.
b) Minimum CRAR of 10 per cent.
c) Net NPA should not exceed 3 per cent.
d) Made net profit for last 3 years.

(x) AD Category - I banks, excluding Urban Co-operative Banks, which fulfill the above RBI prudential requirements should formulate detailed guidelines for Trading and Clearing of currency futures contracts and management of risks. These guidelines should be approved by their Boards.

(xi) The exposure of the banks, on their own account, in the currency futures market shall form part of their Net Open Position (NOP) and Aggregate Gap (AG) limits.

(xii) The position limits for various classes of participants in the currency futures markets, the surveillance and disclosures of transactions in the currency futures market shall be in accordance with the guidelines issued by the SEBI.

(xiii) Under section 10 (1) of the Foreign Exchange Management Act, 1999, Recognized Stock Exchanges and their respective Clearing Corporations must hold an authorization issued by the Reserve Bank to deal in or otherwise undertake the business relating to currency futures.

6) Reserve Bank of India, Foreign Exchange Department have issued A.P. (DIR Series) Circular No. 05 dated August 06, 2008 (RBI/2008-09/122) titled 'Guidelines on trading of Currency Futures in Recognised Stock / New Exchanges'.

RBI has advised in this circular that "Persons resident in India have a menu of over-the-counter (OTC) products, such as currency forwards, swaps and options for hedging their currency risk. In the context of liberalisation of the capital account, as also continued development of the financial markets, it is felt that wider hedging opportunities could enhance the flexibility for the residents to manage their currency risk dynamically. International experiences have also established that the exchange traded currency futures contracts facilitate efficient price discovery, enable better counterparty credit risk

management, wider participation, trading of standardized product, reduce transaction costs, etc. Accordingly, as a part of further developing the derivatives market in India and adding to the existing menu of foreign exchange hedging tools available to the residents, it has been decided to introduce currency futures in recognized stock exchanges or new exchanges recognized by the Securities and Exchange Board of India (SEBI) in the country. The currency futures market would function subject to the directions, guidelines, instructions issued by the Reserve Bank and the SEBI, from time to time."

7) Reserve Bank of India, Department of Banking Operations and Development in their Circular DBOD.No.FSD.BC. 29 /24.01.001/2008-09 dated August 6, 2008 (RBI/2008-09/123) titled 'Introduction of Currency Futures–Permitting banks to become trading /clearing members of SEBI-approved exchanges' stated that 'Banks which fulfill the conditions mentioned in the Notification No. FED.1/DG(SG)-2008 dated August 6, 2008 should lay down detailed guidelines with their Board's approval for conduct of this activity and management of risks. It should be ensured that the bank's position is kept distinct from the clients' position. In case of supervisory discomfort with the functioning of a bank, the Reserve Bank may impose restrictions on the bank regarding the conduct of this business as it deems fit.

8) This circular also stated that the banks which do not meet the minimum prescribed prudential requirements are permitted to participate in the currency futures market only as clients.

7.5 REGULATORY FRAMEWORK FOR EXCHANGES

A recognized stock exchange having nationwide terminals or a new exchange recognized by SEBI may set up currency futures segment after obtaining SEBI's approval. The currency futures segment should fulfill the following eligibility conditions for approval:

1. The trading should take place through an online screen-based trading system, which also has a disaster recovery site.
2. The clearing of the currency derivatives market should be done by an independent Clearing Corporation. The Clearing Corporation should satisfy the conditions stipulated in the following section (Section 7.6).
3. The exchange must have an online surveillance capability which monitors positions, prices and volumes in real time so as to deter market manipulation.
4. The exchange shall have a balance sheet networth of at least Rs. 100 crores.
5. Information about trades, quantities, and quotes should be disseminated by the exchange in real time to at least two information vending networks which are accessible to investors in the country. The per-half-hour capacity of the computers and the network should be at least 4 to 5 times of the anticipated peak load in any half hour, or of the actual peak load seen in any half-hour during the preceding six months, whichever is higher. This shall be reviewed from time to time on the basis of experience. The segment should have at least 50 members to start currency derivatives trading. The exchange should have arbitration and investor grievances redressal mechanism operative from all the four areas/regions of the country. The exchange should have adequate inspection capability. If already existing, the exchange should have a satisfactory record of monitoring its members, handling investor complaints and preventing irregularities in trading.

A recognized stock exchange where other securities are also being traded may set up a separate currency futures segment in the following manner:

1. The trading and the order driven platform of currency futures should be separate from the trading platforms of the other segments.

2. The membership of the currency futures segment should be separate from the membership of the other segments.

7.6 REGULATORY FRAMEWORK FOR CLEARING CORPORATIONS

A Clearing Corporation in the currency futures segment can function only after obtaining SEBI approval. The conditions inter-alia includes the following:

- The Clearing Corporation should be a company incorporated under the Companies Act, 1956 and should be distinct from the exchange.
- The Clearing Corporation must perform full novation.
- The Clearing Corporation should enforce the stipulated margin requirements, mark to market settlement, electronic funds transfer, etc.
- A separate settlement guarantee fund should be created and maintained for meeting the obligations arising out of the currency futures segment. A separate investor protection fund should also be created and maintained for the currency futures market.

7.7 GOVERNING COUNCIL OF THE EXCHANGE AND CLEARING CORPORATION

The currency futures segment of the Exchange should have a separate Governing Council on which the representation of Trading /Clearing Members of the currency futures segment should not exceed 25%. Further, 50% of the public representatives on the Governing Council of the currency futures segment can be common with the Governing Council of the cash/equity derivatives segments of the Exchange. The Chairman of the Governing Council of the currency futures segment of the Exchange shall be a member of the Governing Council. If the Chairman is a Trading Member/ Clearing Member, then he shall not carry on any trading/clearing business on any Exchange during his tenure as Chairman. No trading / clearing member should be allowed simultaneously to be on the Governing Council of the currency futures segment and the cash/equity derivatives segment.

The currency futures segment of the Clearing Corporation should be governed by a separate Governing Council which should not have any trading member representation.

7.8 ELIGIBILITY CRITERIA FOR MEMBERS

The membership of the Currency Derivatives Segment shall be separate from the membership of the Equity Derivative Segment or the Cash Segment of a recognized stock exchange. Members in Currency Derivatives segment are required to seek separate registration from SEBI, in addition to their registration as members of existing stock exchanges. The members of an existing segment of the Exchange would not automatically become the members of Currency Derivatives Segment.

Eligibility Criteria for members in Currency Derivatives Segment

The following entities are eligible to apply for membership subject to the regulatory norms and provisions of SEBI and as provided in the Rules, Regulations, Byelaws and Circulars of the Exchange -

1. Individuals;

2. Partnership Firms registered under the Indian Partnership Act, 1932;

3. Corporations, Companies or Institutions or subsidiaries of such Corporations, Companies or Institutions set up for providing financial services;

4. Such other person as may be permitted under the Securities Contracts (Regulation) Rules 1957

Individuals

Criteria	
AGE	Minimum age : 21 years Maximum age : 60 years
STATUS	Indian Citizen
EDUCATION	At least a graduate or equivalent qualification
EXPERIENCE	Should have a minimum experience in as prescribed by Securities and Exchange Board of India

Partnership Firms

Criteria	
AGE	Minimum age : 21 years (applicable for partners)
STATUS	Registered Partnership firm under Indian Partnership Act, 1932
EDUCATION	Partners should be at least a graduate or equivalent qualification
DESIGNATED PARTNERS EXPERIENCE	Should have a minimum experience in as prescribed by Securities and Exchange Board of India

Corporates

A company as defined in the Companies Act, 1956 (1 of 1956), shall be eligible to be admitted as a member of a Stock Exchange provided:

i. such company is formed in compliance with the provisions of Section 12 of the said Act;

ii. it undertakes to comply with such other financial requirements and norms as may be specified by the Securities and Exchange Board of India for the registration of such company under sub-section (1) of section 12 of the Securities and Exchange Board of India Act, 1992 (15 of 1992);

iii. the directors of such company are not disqualified for being members of a stock exchange under clause (1) of rule 8 [except sub-clauses (b) and (f) thereof] or clause (3) of rule 8 [except sub-clauses (a) and (f) thereof] of the Securities Contracts (Regulation) Rules, 1957 and the directors of the company had not

held the offices of the directors in any company which had been a member of the stock exchange and had been declared defaulter or expelled by the stock exchange.

Criteria	
AGE	Minimum age : 21 years (applicable for directors)
STATUS	Corporate registered under The Companies Act, 1956 (Indian)
EDUCATION	Two Directors (Designated directors) should be at least graduate or equivalent qualification
DESIGNATED DIRECTORS EXPERIENCE	Should have a minimum experience in as prescribed by Securities and Exchange Board of India
MINIMUM PAID UP EQUITY CAPITAL	As stipulated by the Exchange

Professional Clearing Member

The following persons are eligible to become PCMs for Currency Futures Derivatives provided they fulfill the prescribed criteria:

1. SEBI Registered Custodians; and
2. Banks

Banks

Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' are permitted to become trading and clearing members of the currency futures market of the recognized stock exchanges, on their own account and on behalf of their clients, subject to fulfilling the following minimum prudential requirements:

a) Minimum net worth of Rs. 500 crores.

b) Minimum CRAR of 10 per cent.

c) Net NPA should not exceed 3 per cent.

d) Made net profit for last 3 years.

The AD Category - I banks which fulfill the prudential requirements are required to lay down detailed guidelines with the approval of their Boards for trading and clearing in currency futures contracts and management of risks.

AD Category - I banks which do not meet the above minimum prudential requirements and AD Category - I banks which are Urban Co-operative banks or State Co-operative banks can participate in the currency futures market only as clients, subject to approval from the respective regulatory Departments of the Reserve Bank.

Other applicable eligibility criteria

1. Where the applicant is a partnership firm/corporate entity, the applicant shall identify a Dominant Promoter Group as per the norms of the Exchange at the time of making the application. Any change in the

shareholding of the company including that of the said Dominant Promoter Group or their shareholding interest shall be effected only with the prior permission of the Exchange/SEBI.

2. The applicant has to ensure that at any point of time they would ensure that at least individual/one partner/one designated director/compliance officer would have a valid certification as per the requirements of the Exchange. The above norm would be a continued admittance norm for membership of the Exchange.

3. An applicant must be in a position to pay the membership and other fees, deposits etc, as applicable at the time of admission within three months of intimation to him of admission as a Trading Member or as per the time schedule specified by the Exchange.

4. The trading members and sales persons in the currency futures market must have passed a certification programme which is considered adequate by SEBI. The approved users and sales personnel of the trading member should have passed the certification programme.

5. At present, FIIs and NRIs would not be permitted to participate in currency futures market.

6. Strict enforcement of "Know Your Customer" (KYC) rule is required. Therefore every client shall be registered with the member. The members are also required to make their clients aware of the risks involved in derivatives trading by issuing to the client the Risk Disclosure Document and obtain a copy of the same duly acknowledged by the client. The members shall enter into a member constituent agreement as stipulated.

7. The Exchange may specify such standards for investor service and infrastructure with regard to any category of applicants as it may deem necessary, from time to time.

Who cannot become a member?

No entity shall be admitted as a member/partner or director of the member if

a. It has been adjudged bankrupt or a receiver order in bankruptcy has been made against him or he has been proved to be insolvent even though he has obtained his final discharge;

b. it has compounded with his creditors for less than full discharge of debts;

c. it has been convicted of an offence involving a fraud or dishonesty;

d. it is engaged as a principal or employee in any business other than that of Securities, except as a broker or agent not involving any personal financial liability or for providing merchant banking, underwriting or corporate or investment advisory services, unless he undertakes to severe its connections with such business on admission, if admitted;

e. it has been at any time expelled or declared a defaulter by any other Stock Exchange or he has been debarred from trading in securities by an Regulatory Authorities like SEBI, RBI etc;

f. it incurs such disqualification under the provisions of the Securities Contract (Regulations) Act, 1956 or Rules made there-under so as to disentitle such persons from seeking membership of a stock exchange;

g. it incurs such disqualification consequent to which the Exchange determines it to be not in public interest to admit him as a member on the Exchange, provided that in case of registered firms, body corporates and companies, the condition from (will apply to all partners in case of partnership firms, all directors in case of companies) the Exchange may from time to time modify

/ expand the scope of activities that could be considered as relevant experience for the above purpose.

Further, the Exchange reserves the right to accept or reject any application or amend the terms and conditions without assigning any reason whatsoever.

Forms of collaterals acceptable by the Clearing Corporation

Members have to fulfill certain requirements and provide collateral deposits to the Clearing Corporation. All collateral deposits are segregated into cash component and non-cash component. Cash component means cash, bank guarantee, fixed deposit receipts, Treasury bills and dated government securities. Non-cash component mean all other forms of collateral like approved demat securities.

Requirements to become authorized / approved user

Trading members and participants are entitled to appoint, with the approval of the Currency Derivatives segment of the exchange, authorized persons and approved users to operate the trading workstation(s). These authorized users can be individuals, registered partnership firms or corporate bodies.

These Authorized Persons cannot collect any commission or any amount directly from the clients they introduce to the trading member who appointed him. However they can receive a commission or any such amount from the trading member who appointed them as provided under regulation.

CHAPTER 8 ACCOUNTING AND TAXATION

8.1 ACCOUNTING

The Institute of Chartered Accountants of India (ICAI) has issued guidance notes on accounting of index futures contracts from the view point of parties who enter into such futures contracts as buyers or sellers. For other parties involved in the trading process, like brokers, trading members, clearing members and clearing corporations, a trade in currency derivatives is similar to a trade in, say shares, and does not pose any peculiar accounting problems. It is not clear, as of now, whether any separate guidance notes would be issued for currency derivatives. If issued, participants will have to consider such guidance shall prevail.

Hence in this section, just as a parallel on the lines of guidelines for equity derivatives, we shall largely focus on the accounting treatment of currency futures in the books of the client. But before we do so, a quick re-look at some of the terms used.

1. Clearing corporation/house: Clearing corporation/house means a clearing corporation/house approved by SEBI for clearing and settlement of trades on the currency derivatives exchange/segment.

2. Clearing member: Clearing member means a member of the clearing corporation and includes all categories of clearing members as may be admitted as such by the clearing corporation to the currency segment.

3. Client: A client means a person, on whose instructions and on whose account, the trading member enters into any contract for the purchase or sale of any contract or does any act in relation thereto.

4. Contract month: Contract month means the month in which the exchange/clearing corporation rules require a contract to be finally settled.

5. Daily settlement price: Daily settlement price is the closing price of the currency futures contract for the day or such other price as may be decided by the clearing house from time to time.

6. Currency Derivatives exchange/segment: Currency Derivative exchange means an exchange approved by SEBI as a currency derivative exchange. Currency Derivative segment means segment of an existing exchange approved by SEBI as currency derivative segment.

7. Final settlement price: The final settlement price is the closing price of the currency futures contract on the last trading day of the contract or such other price as may be specified by the clearing corporation, from time to time.

8. Long position: Long position in a currency futures contract means outstanding purchase obligations in respect of the currency futures contract at any point of time.

9. Open position: Open position means the total number of currency futures contracts that have not yet been offset and closed by an opposite position.

10. Settlement date: Settlement date means the date on which the settlement of outstanding obligations in a currency futures contract are required to be settled as provided in the Bye-Laws of the Currency Derivatives exchange/segment.

11. Short position: Short position in a currency futures contract means outstanding sell obligations in

respect of a currency futures contract at any point of time.

12. Trading member: Trading member means a Member of the Currency Derivatives exchange/segment and registered with SEBI.

Accounting at the inception of a contract

Every client is required to pay to the trading member/clearing member, the initial margin determined by the clearing corporation as per the bye-laws/regulations of the exchange for entering into currency futures contracts. Such initial margin paid/payable should be debited to "Initial margin - currency futures account". Additional margins, if any, should also be accounted for in the same manner. It may be mentioned that at the time when the contract is entered into for purchase/sale of currency futures, no entry is passed for recording the contract because no payment is made at that time except for the initial margin. At the balance sheet date, the balance in the 'Initial margin - currency futures account' should be shown separately under the head 'current assets'. In those cases where any amount has been paid in excess of the initial/additional margin, the excess should be disclosed separately as a deposit under the head 'current assets'. In cases where instead of paying initial margin in cash, the client provides bank guarantees or lodges securities with the member, a disclosure should be made in the notes to the financial statements of the client.

Accounting at the time of daily settlement

This involves the accounting of payment/receipt of mark-to-market margin money. Payments made or received on account of daily settlement by the client would be credited/debited to the bank account and the corresponding debit or credit for the same should be made to an account titled as "Mark-to-market margin - currency futures account".

Some times the client may deposit a lump sum amount with the broker/trading member in respect of mark-to-market margin money instead of receiving/paying mark-to-market margin money on daily basis. The amount so paid is in the nature of a deposit and should be debited to an appropriate account, say, "Deposit for mark-to-market margin account". The amount of "mark-to-market margin" received/paid from such account should be credited/debited to "Mark-to-market margin – currency futures account" with a corresponding debit/credit to "Deposit for mark-to-market margin account". At the year-end, any balance in the "Deposit for mark-to-market margin account" should be shown as a deposit under the head "current assets".

Accounting for open positions

Position left open on the balance sheet date must be accounted for. Debit/credit balance in the "mark-to-market margin - currency futures account", maintained on global basis, represents the net amount paid/received on the basis of movement in the prices of currency futures till the balance sheet date. Keeping in view 'prudence' as a consideration for preparation of financial statements, provision for anticipated loss, which may be equivalent to the net payment made to the broker (represented by the debit balance in the "mark-to-market margin - currency futures account") should be created by debiting the profit and loss account. Net amount received (represented by credit balance in the "mark-to-market margin - currency futures account") being anticipated profit should be ignored and no credit for the same should be taken in the profit and loss account. The debit balance in the said "mark-to-market margin - currency futures account", i.e., net payment made to the broker, may be shown under the head "current assets, loans and advances" in the balance sheet and the provision created there-against should be shown as a deduction therefrom. On the other hand, the credit balance in the said account, i.e., the net amount received from the broker, should be shown as a current liability under the head "current liabilities and provisions in the balance sheet".

Accounting at the time of final settlement

This involves accounting at the time of final settlement or squaring-up of the contract. At the expiry of a series of currency futures, the profit/loss, on final settlement of the contracts in the series, should be calculated as the difference between final settlement price and contract prices of all the contracts in the series. The profit/loss, so computed, should be recognized in the profit and loss account by corresponding debit/credit to "mark-to-market margin - currency futures account". However, where a balance exists in the provision account created for anticipated loss, any loss arising on such settlement should be first charged to such provision account, to the extent of the balance available in the provision account, and the balance of loss, if any, should be charged to the profit and loss account. Same accounting treatment should be made when a contract is squared-up by entering into a reverse contract. It appears that, at present, it is not feasible to identify the currency futures contracts. Accordingly, if more than one contract in respect of the series of currency futures contracts to which the squared-up contract pertains is outstanding at the time of the squaring of the contract, the contract price of the contract so squared-up should be determined using First-In, First-Out (FIFO) method for calculating profit/loss on squaring-up.

On the settlement of a currency futures contract, the initial margin paid in respect of the contract is released, which should be credited to "Initial margin - currency futures account", and a corresponding debit should be given to the bank account or the deposit account (where the amount is not received).

Accounting in case of a default

When a client defaults in making payment in respect of a daily settlement, the contract is closed out. The amount not paid by the Client is adjusted against the initial margin. In the books of the Client, the amount so adjusted should be debited to "mark-to-market - currency futures account" with a corresponding credit to "Initial margin - currency futures account". The amount of initial margin on the contract, in excess of the amount adjusted against the mark-to-market margin not paid, will be released. The accounting treatment in this regard will be the same as explained above. In case, the amount to be paid on daily settlement exceeds the initial margin the excess is a liability and should be shown as such under the head 'current liabilities and provisions', if it continues to exist on the balance sheet date. The amount of profit or loss on the contract so closed out should be calculated and recognized in the profit and loss account in the manner dealt with above.

Disclosure requirements

The amount of bank guarantee and book value as also the market value of securities lodged should be disclosed in respect of contracts having open positions at the year end, where initial margin money has been paid by way of bank guarantee and/or lodging of securities.

Total number of contracts entered and gross number of units of currency futures traded (separately for buy/sell) should be disclosed in respect of each series of currency futures.

The number of currency futures contracts having open position, number of units of currency futures pertaining to those contracts and the daily settlement price as of the balance sheet date should be disclosed separately for long and short positions, in respect of each series of currency futures.

8.2 TAXATION OF DERIVATIVE TRANSACTION IN SECURITIES

Taxation of Profit/Loss on derivative transaction in securities

Prior to Financial Year 2005–06, transaction in derivatives were considered as speculative transactions for the purpose of determination of tax liability under the Income-tax Act. This is in view of section 43(5) of the Income-tax Act which defined speculative transaction as a transaction in which a contract for purchase or sale of any commodity, including stocks and shares, is periodically or ultimately settled otherwise than by the actual delivery or transfer of the commodity or scrips. However, such transactions entered into by hedgers and stock exchange members in course of jobbing or arbitrage activity were specifically excluded from the purview of definition of speculative transaction.

In view of the above provisions, most of the transactions entered into in derivatives by investors and speculators were considered as speculative transactions. The tax provisions provided for differential treatment with respect to set off and carry forward of loss on such transactions. Loss on derivative transactions could be set off only against other speculative income and the same could not be set off against any other income. This resulted in payment of higher taxes by an assesse.

Finance Act, 2005 has amended section 43(5) so as to exclude transactions in derivatives carried out in a "recognized stock exchange" for this purpose. This implies that income or loss on derivative transactions which are carried out in a "recognized stock exchange" is not taxed as speculative income or loss. Thus, loss on derivative transactions can be set off against any other income during the year. In case the same cannot be set off, it can be carried forward to subsequent assessment year and set off against any other income of the subsequent year. Such losses can be carried forward for a period of 8 assessment years. It may also be noted that securities transaction tax paid on such transactions is eligible as deduction under Income-tax Act, 1961.

CHAPTER 9 CODES OF CONDUCT AND INVESTOR PROTECTION MEASURES

9.1 ADHERENCE TO SEBI CODES OF CONDUCT FOR BROKERS/ SUB-BROKERS

All trading members must at all times adhere to the Code of Conduct as specified by the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations, 1992.

CODE OF CONDUCT FOR BROKERS

A registered broker must at all times abide by the Code of Conduct as given below:

I. General

a) Integrity: A broker should maintain high standards of integrity, promptitude and fairness in the conduct of all his business.

b) Exercise of Due Skill and Care: A broker should act with due skill, care and diligence in the conduct of all his business.

c) Manipulation: A broker should not indulge in manipulative, fraudulent or deceptive transactions or schemes or spread rumours with a view to distorting market equilibrium or making personal gains.

d) Malpractices: A broker should not create false market either singly or in concert with others or indulge in any act detrimental to the investors' interest or which leads to interference with the fair and smooth functioning of the market. A broker should not involve himself in excessive speculative business in the market beyond reasonable levels.

e) Compliance with Statutory Requirements: A broker should abide by all the provisions of the Act and the rules, regulations issued by the Government, SEBI and the stock exchanges from time to time as may be applicable to him.

II. Duty to the client

a) Execution of Orders: A broker, in his dealings with the clients and the general public, should faithfully execute the orders for buying and selling of securities at the best available market price. A broker should promptly inform his client about the execution or non-execution of an order.

b) Issue of Contract Note: A broker should issue without delay to his client or client of sub-broker a contract note for all transactions in the form specified by the exchanges.

c) Breach of Trust: A broker should not disclose or discuss with any other person or make improper use of the details of personal investments and other information of a confidential nature of the client which he comes to know in his business relationship.

d) Business and Commission:

(i) A broker should not encourage sales or purchases of securities with the sole object of generating brokerage or commission.

(ii) A broker should not furnish false or misleading quotations or give any other false or misleading advice or information to the clients with a view of inducing him to do business and enabling himself to earn brokerage or commission thereby.

e) Business of Defaulting Clients: A broker should not deal or transact business knowingly, directly or indirectly or execute an order for a client who has failed to carry out his commitments in relation to securities with another broker.

f) Fairness to Clients: A broker, when dealing with a client, should disclose whether he is acting as a principal or as an agent and should ensure at the same time that no conflict of interest arises between him and the client. In the event of a conflict of interest, he should inform the client accordingly and should not seek to gain a direct or indirect personal advantage from the situation and should not consider client's interest inferior to his own.

g) Investment Advice: A broker should not make a recommendation to any client who might be expected to rely thereon to acquire, dispose of, retain any securities unless he has reasonable grounds for believing that the recommendation is suitable for such a client upon the basis of the facts, if disclosed by such a client as to his own security holdings, financial situation and objectives of such investment. The broker should seek such information from clients, wherever he feels it is appropriate to do so.

h) Investment Advice in publicly accessible media:

(i) A broker or any of his employees should not render, directly or indirectly, any investment advice about any security in the publicly accessible media, whether real-time or non real-time; unless a disclosure of his interest including their long or short position in the said security has been made, while rendering such advice.

(ii) In case, an employee of the broker is rendering such advice, he should also disclose the interest of his dependent family members and the employer including their long or short position in the said security, while rendering such advice.

(iii) Competence of Broker: A broker should have adequately trained staff and arrangements to render fair, prompt and competent services to his clients.

III. Brokers vis-à-vis other brokers

(a) Protection of Clients Interests: A broker should extend fullest cooperation to other brokers in protecting the interests of his clients.

(b) Transactions with Brokers: A broker should carry out his transactions with other brokers and should comply with his obligations in completing the settlement of transactions with them.

(c) Advertisement and Publicity: A broker should not advertise his business publicly unless permitted by the exchange.

(d) Inducement of Clients: A broker should not resort to unfair means of inducing clients from other brokers.

(e) False or Misleading Returns: A broker should not neglect or fail or refuse to submit the required returns and not make any false or misleading statement on any returns required to be submitted to the Board and the exchange.

CODE OF CONDUCT FOR SUB-BROKERS

The sub-broker at all times abides by the Code of Conduct as given hereunder:

I. General

(a) Integrity: A sub-broker should maintain high standards of integrity, promptitude and fairness in the conduct of his business.

(b) Exercise of Due Skill and Care: A sub-broker should act with due skill, care and diligence in the conduct of his business.

II. Duty to the Client

1. Execution of Orders:

(a) A sub-broker, in his dealings with the clients and the general public, should faithfully execute the orders for buying and selling of securities at the best available market price. A sub-broker should promptly inform his client about the execution or non-execution of an order.

2. Issue of Purchase or Sale Notes:

(a) A sub-broker should issue promptly to his clients purchase or sale notes for all the transactions entered into by him with his clients.

(b) A sub-broker should not match the purchase and sale orders of his clients and each such order must invariably be routed through a member-broker of the stock exchange with whom he is affiliated.

3. Breach of Trust: A sub-broker should not disclose or discuss with any other person or make improper use of the details of personal investments and other information of a confidential nature of the client which he comes to know in his business relationship.

4. Business and Commission:

(a) A sub-broker should not encourage sales or purchases of securities with the sole object of generating brokerage or commission.

(b) A sub-broker should not furnish false or misleading quotations or give any other false or misleading advice or information to the clients with a view to induce him to do business and enabling himself to earn brokerage or commission thereby.

5. Business of Defaulting Clients: A sub-broker should not deal or transact business knowingly, directly or indirectly or execute an order for a client who has failed to carry out his commitments and is in default with another broker or sub-broker.

6. Fairness to Clients: A sub-broker, when dealing with a client, should disclose that he is acting as an agent ensuring at the same time, that no conflict of interest arises between him and the client. In the event of a conflict of interest, he should inform the client accordingly and should not seek to gain a direct or indirect personal advantage from the situation and should not consider clients' interest inferior to his own.

7. Investment Advice: A sub-broker should not make a recommendation to any client who might be expected to rely thereon to acquire, dispose of, retain any securities unless he has reasonable grounds for believing that

the recommendation is suitable for such a client upon the basis of the facts, if disclosed by such a client as to his own security holdings, financial situation and objectives of such investment. The sub-broker should seek such information from clients, wherever they feel it is appropriate to do so.

8. Investment Advice in publicly accessible media:

(a) A sub-broker or any of his employees should not render, directly and indirectly any investment advice about any security in the publicly accessible media, whether real-time or non-real-time, unless a disclosure of his interest including his long or short position in the said security has been made, while rendering such advice.

(b) In case, an employee of the sub-broker is rendering such advice, he should also disclose the interest of his dependent family members and the employer including their long or short position in the said security, while rendering such advice.

9. Competence of Sub-broker: A sub-broker should have adequately trained staff and arrangements to render fair, prompt and competent services to his clients and continuous compliance with the regulatory system.

III. Sub-Brokers vis-à-vis Brokers

(a) Protection of Clients Interests: A sub-broker should extend fullest cooperation to his broker in protecting the interests of their clients.

(b) Transactions with Brokers: A sub-broker should not fail to carry out his broking transactions with his broker nor should he fail to meet his business liabilities or show negligence in completing the settlement of transactions with them.

(c) Agreement between sub-broker, client of the sub-broker and main broker:
A sub-broker should enter into a tripartite agreement with his client and with the main broker specifying the scope of rights and obligations of the broker, sub-broker and such client of the sub-broker.

(d) Advertisement and Publicity: A sub-broker should not advertise his business publicly unless permitted by the exchanges.

(e) Inducement of Clients: A sub-broker should not resort to unfair means of inducing clients from other brokers.

IV. Sub-brokers vis-a-vis Regulatory Authorities

(a) General Conduct: A sub-broker should not indulge in dishonourable, disgraceful or disorderly or improper conduct on the exchange nor shall he willfully obstruct the business of the exchange. He should comply with the rules, byelaws and regulations of the stock exchange.

(b) Failure to give Information: A sub-broker should not neglect or fail or refuse to submit to SEBI or the exchange with which he is registered, such books, special returns, correspondence, documents, and papers or any part thereof as may be required.

(c) False or Misleading Returns: A sub-broker should not neglect or fail or refuse to submit the required returns and not make any false or misleading statement on any returns required to be submitted to SEBI or the exchanges.

(d) Manipulation: A sub-broker should not indulge in manipulative, fraudulent or deceptive transactions or schemes or spread rumours with a view to distorting market equilibrium or making personal gains.

(e) Malpractices: A sub-broker should not create false market either singly or in concert with others or indulge in any act detrimental to the public interest or which leads to interference with the fair and smooth function of the market mechanism of the stock exchanges. A sub-broker should not involve himself in excessive speculative business in the market.

9.2 ADHERENCE TO CODES OF CONDUCT SPECIFIC TO ETCF SEGMENT

Exchange regulations specify codes of conduct related to the ETCF segment. All trading members must comply with these. These are detailed below.

GENERAL PRINCIPLES

(a) A Trading Member shall make adequate disclosures of relevant material information in his dealings with his clients.

(b) No Trading Member or person associated with the Trading Member shall guarantee a client against a loss in any transactions effected by the Trading Member for such client.

(c) Professionalism: A Trading Member in the conduct of his business shall observe high standards of commercial honour of just and equitable principles of trade.

(d) Adherence to Trading Practices: Trading Members shall adhere to the Rules, Regulations and Bye - laws of the Exchanges and shall comply with such operational parameters, rulings, notices, guidelines and instructions of the Relevant Authority as may be applicable from time to time.

(e) Honesty and Fairness: In conducting his business activities, a Trading Member shall act honestly and fairly, in the best interests of his constituents.

(f) Capabilities: A Trading Member shall have and employ effectively the resources and procedures which are needed for the proper performance of his business activities.

TRADING PRINCIPLES

(a) Trading Members/Participants shall ensure that the fiduciary and other obligations imposed on them and their staff by the various statutory acts, rules and regulations is complied with.

(b) Trading Members/Participants shall ensure –

(i) that any employee who commits the Trading Members or Participants to a transaction has the necessary authority to do so.

(ii) that employees are adequately trained in operating in the relevant market segment in which they deal, are aware of their own, and their organization's responsibilities as well as the relevant statutory acts governing the Trading Member, the Rules, Regulations and Bye-laws of the Currency Derivatives Segments of the Exchanges including any additions or amendments thereof.

(c) A Trading Member shall be responsible for all the actions including trades originating through or with the use of all following variables - Trading Member Id and User Id, at that point of time. However if the Trading Member satisfies the Currency Derivatives Segment of the Exchanges that the action(s) and/or trade(s) took place due to fraud or misrepresentation by any other person other than his authorized person(s) and that the action(s) and/or trades did not originate from any of his approved workstations, the Currency Derivatives

Segment of the Exchanges may issue such directions as they considers just and reasonable. The directions may include referring the matter to arbitration and/or annulment of trade(s) so affected.

(d) When entering into transactions on behalf of constituents, the Trading Members shall ensure that they abide by the Code of Conduct and regulations.

(e) No Trading Member or person associated with a Trading Member shall make improper use of constituent's securities/positions in derivatives contracts or funds.

(f) No Trading Member shall publish and circulate or cause to be published or circulated, any notice, circular, advertisement, newspaper article, investment service or communication of any kind which purports to report any transaction as a purchase or sale of any derivatives contracts unless such Trading Member can establish if called for, that such transaction was a bonafide purchase or sale of such contract; or which purports to quote the purchase/sale price for any derivatives contract unless such Trading Member can establish if called for that such quotation represents a bonafide order of such derivatives contract.

(g) When entering into or arranging a transaction, Trading Members must ensure that at all times great care is taken not to misrepresent in any way, the nature of transaction.

(h) No Trading Member shall exercise any discretionary power in a constituent's account unless such constituent has given prior written authorisation to a stated individual or individuals and the account has been accepted by the Trading Member, as evidenced in writing by the Trading Member.

(i) A Trading Member shall not act as a principal or enter into any agreement or arrangement with a constituent or constituent's agents, employees or any other person connected to the constituent, employee or agency, whereby special or unusual rates are given with an intent to give special or unusual advantage to such constituent for the purpose of securing his business.

(j) The Trading Member shall not disclose the name and beneficial identity of a constituent to any person except to the Currency Derivatives Segment of the Exchanges as and when required by it.

(k) The facility of placing orders on 'Pro-account' through trading terminals shall be availed by the Trading Members only at one location of the Trading Members as specified / required by the Trading Members. Any trading terminal located at a place other than the above location shall have a facility to place order only for and on behalf of a Constituent by entering client code details as required/specified by the Exchange / SEBI. In case any Trading Member requires the facility of using 'Pro-account' through trading terminals from more than one location, such Trading Member shall request the Exchange stating the reason for using the 'Pro-account' at multiple locations and the Exchange may, on a case to case basis after due diligence, consider extending the facility of allowing use of 'Pro-account' from more than one location.

GENERAL GUIDELINES

A Trading Member shall desist from the following trading practices while conducting business on the Currency Derivatives Segment of the Exchanges.

(a) Shielding or Assisting:

No Trading Member shall shield or assist or omit to report any other Trading Member whom he has known to have committed a breach or evasion of any Rules, Bye-Laws or Regulations of the Currency Derivatives Segment of the Exchanges or of any resolution, order, notice or direction thereunder of the Governing Board or the Managing Director or of any committee or officer of the Currency Derivatives Segment of the Exchanges authorised in that behalf.

(b) Suspended Derivatives Contracts

Except with the permission of the Currency Derivatives Segment of the Exchanges, business shall not be transacted by the Trading Member in derivatives contracts which have been suspended from official quotation.

(c) Misleading Transactions

A Trading Member shall not -

(i) make bids and/or offers for derivatives contracts with an intention of creating a false or misleading appearance with respect to the market for, or the price of any derivatives contracts,
(ii) make a transaction or give an order for the purchase or sale of derivatives contracts, the execution of which would involve no change of beneficial ownership, unless the Trading Member had no knowledge that the transaction would not involve a change in the beneficial ownership of derivatives contracts.

(d) Use of Information obtained in Fiduciary Capacity

A Trading Member who in the capacity of paying agent, transfer agent, trustee, or in any other similar capacity, has received information as to the purchase/sale of derivatives contracts, shall under no circumstance make use of such information for the purpose of soliciting purchases/sales except at the request and on behalf of the issuer, if any.

9.3 GRIEVANCE REDRESSAL MECHANISM FOR INVESTORS

Each Exchange has a process for Grievance Redressal. The general features of these processes are mentioned below.

Investor Grievance Resolution Mechanism (against trading members)

All exchanges have a dedicated department to handle grievances of investors against the Trading Members and Issuers. Generally these departments operate from all offices of the exchange so as to provide easy access to investors. All exchanges also have supervision mechanisms for the functioning of this department/ cell. These include the Investor Service Committees (ISC) consisting of Exchange officials and independent experts whose nomination is approved by Securities and Exchange Board of India. SEBI also monitors exchange performance related to investor grievance redressal.

Process

Receipt of Complaints

The investor is required to submit his complaint in the prescribed complaint form against the trading member providing the details as specified in the instructions annexed to the complaint registration form along with supporting documents substantiating his claim.

On receipt of the complaint, exchanges scrutinize the nature of complaint and adequacy of documents submitted along with the complaint. If all the relevant documents are submitted, the complaint is recorded, a complaint number is assigned and an acknowledgement towards receipt of complaint is sent to the investor. If the documents are inadequate, the investor is advised to set right the deficiencies in the documents.

Redressal of Complaints

Generally, exchanges initially try to resolve the complaint by following up with the member and the complainant. The issues raised by the complainant are analyzed and the complaint is taken up the concerned trading member for resolution / response within the set timeframe. Subsequently, the response received from the trading member is reviewed.

- If the Trading Member has agreed with the contents of the complaint, he is advised to settle the matter immediately and confirm

- If the Trading Member states that he has already settled the complaint, proof of settlement is solicited and cross confirmation is obtained from the investor

- If the Trading Member raises issues from his side, the comments are analyzed and forwarded to the investor for his views and comments. If differences persist the Exchange holds meeting with the parties at the Exchange premises for expeditious resolution of the complaints. Incase differences still persist the investor is informed that he may opt for Arbitration proceedings.

- If the Trading Member has justifiable reasons for his actions which are within the regulatory framework, the investor is enlightened on the correct position on the matter.

Nature of Complaints

Exchanges provide assistance if the complaints fall within the purview of the Exchange and are related to trades that are executed on the Exchange Platform. These may be of the following types:

- Non-Receipt of Corporate Benefit (Dividend/Interest/Bonus etc.)

- Complaints against trading members on account of the following :

    - ◊ Non-receipt of funds / securities
    - ◊ Non- receipt of documents such as member client agreement, contract notes, settlement of accounts, order trade log etc.
    - ◊ Non-Receipt of Funds / Securities kept as margin
    - ◊ Trades executed without adequate margins
    - ◊ Delay /non – receipt of funds
    - ◊ Squaring up of positions without consent
    - ◊ Unauthorized transaction in the account
    - ◊ Excess Brokerage charged by Trading Member / Sub-broker
    - ◊ Unauthorized transfer of funds from commodities account to other accounts etc.

- Complaints in cases where the member has surrendered his membership and the complainant has approached the Exchange before expiry of the time mentioned in the public notice

Exchanges may not take up the following types of complaints

a. Complaints in respect of transactions which are already subject matter of Arbitration proceedings,

b. Complaints involving payment of funds and transfer of securities to entities other than Trading Member,

c. Claims for mental agony/harassment and expenses incurred for pursuing the matter with the ISC,

d. Claims for notional loss, opportunity loss for the disputed period or trade,

e. Complaints pertaining to trades not executed on the Exchange by the complainant,

f. Claims of sub-broker/authorized persons for private commercial dealings with the trading member,

g. Claims relating to transactions which are in the nature of loan or financing which are not within the framework defined by the Exchange.

Arbitration

SEBI has instructed the exchange to have arbitration committees so that differences, disputes and claims between trading members and investors can be settled effectively and in a short time. Arbitration is also governed by Exchange Bye-laws.

Arbitration is a quasi judicial process of settlement of disputes between Trading Members, Investors, Sub-brokers & Clearing Members and between Investors and Issuers (Listed Companies). Generally the application for arbitration has to be filed at the Arbitration Centres established by the exchanges.

The parties to arbitration are required to select the arbitrator from the panel of arbitrators provided by the Exchange. The arbitrator conducts the arbitration proceeding and passes the award normally within a period of three months from the date of initial hearing.

The arbitration award is binding on both the parties. However, the aggrieved party, within fifteen days of the receipt of the award from the arbitrator, can file an appeal to the arbitration tribunal for re-hearing the whole case. On receipt of the appeal, the Exchange appoints an Appellate Bench consisting of five arbitrators who re-hear the case and then give the decision. The judgment of the Bench is by a 'majority' and is binding on both the parties. The final award of the Bench is enforceable as if it were the decree of the Court.

Any party who is dissatisfied with the Appellate Bench Award may challenge the same only in a Court of Law.

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APPENDIX A SAFEGUARDS FOR INVESTORS

Investors must understand the process that is required to be followed while transacting on exchanges. Investors must also be aware of their rights vis-à-vis trading members. The following section contains some of these processes that must be understood before trading in the securities market.

1. Selecting a Broker/ Sub - Broker

   Investors must deal only with a SEBI registered Broker / Sub - broker after due diligence. Details of the registered brokers can be obtained from the Exchange websites.

2. Entering into an Agreement with the Trading member (broker)/ Sub-broker

Investors must:

- Fill in a Client registration form with the Broker / Sub - broker
- Enter into Broker / Sub - broker - Client Agreement. This agreement is mandatory for all investors for registering as a client of a Trading Member.
- Ensure the following before entering into an agreement:
- Carefully read and understand the terms and conditions of the agreement before executing the same on a valid stamp paper of the requisite value.
- Agreement must be signed on all the pages by the Client and the Member or their representative who has the authority to sign the agreement. Agreement has also to be signed by the witnesses by giving their names and addresses.
- Investors must note that Regulatory Authorities have not stipulated for execution of any document other than Broker/ Sub - Broker / Client Agreement.

3. Transacting

Investors must:

- Specify to the Broker / Sub - broker, the exchange through which the trade is to be executed and maintain separate account for each exchange.
- Obtain a valid Contract Note from the Broker / Sub-broker within 24 hours of the execution of the trade.

  Contract note is a confirmation of trade(s) done on a particular day for and on behalf of a client in the prescribed format. It establishes a legally enforceable relationship between the Trading Member and his Client in respect of settlement of trades executed on the exchange as stated in the Contract Note.

  Contract Notes are made in duplicate, and the Trading Member and Client, both are provided one copy each. The Client is expected to sign on the duplicate copy of the Contract Note, confirming receipt of the original. The following are the prescribed types of contract notes.

- ◊ Contract Note - Form 'A' - Contract Note issued where Member is acting for constituents as brokers/ agents.

- ◊ Contract Note - Form 'B' - Contract Note issued by Members dealing with constituents as principals.

- Ensure that the Contract Note:

  - ◊ Contains SEBI registration number of the Trading Member/ Sub – broker.

  - ◊ Contains details of trade such as, Order number, trade number, trade time, quantity, price, brokerage, settlement number, and details of other levies.

  - ◊ Shows trade price separately from the brokerage charged.

  - ◊ Shows brokerage within SEBI stipulated limits. As stipulated by SEBI, the maximum brokerage that can be charged is 2.5% of the contract price. This maximum brokerage is inclusive of the brokerage charged by the sub-broker (Sub-brokerage cannot exceed 1.5% of the contract price). Additional charges that a Trading Member can charge include Service Tax on the brokerage, any penalties arising on behalf of client and Securities Transaction Tax (STT).

  - ◊ The brokerage, service tax and STT are indicated separately in the Contract Note.

  - ◊ Contains signature of authorised representative of the broker.

  - ◊ Contains arbitration clause stating jurisdiction of relevant courts.

4. Settlement

Investors must:

- Ensure delivery of securities/ payment of money to the broker immediately upon getting the Contract Note for sale / purchase but in any case, before the prescribed pay-in-day.

- Give the Depository Participant (DP), 'Delivery out' instructions to transfer the same from the beneficiary account to the pool account of broker through whom shares and securities have been sold, so as to deliver securities from ‘demat’ account.

  The instructions must contain: details of the pool a/c of broker to which the shares are to be transferred, details of security, quantity etc.

  As per the requirement of depositories the 'Delivery out' Instruction should be given at least 48 hours prior to the cut-off time for the prescribed securities ‘pay-in’.

- Give the Depository Participant (DP) ‘Delivery in' instructions to accept shares in beneficiary account from the pool account of broker through whom shares have been purchased, so as to receive shares in the demat account.

- Ensure that the members pay the money or securities to the investor within 24 hours of the payout.

GENERAL DO'S AND DON'TS FOR INVESTORS

Investors must follow some Do's and Don'ts while transacting in the securities market. Given below are some general Do's and Don'ts for investors:

Do's

Investors must:

- Always deal with the market intermediaries registered with SEBI / stock exchanges.
- Carry out due diligence before registering as client with any intermediary. Carefully read and understand the contents stated in the Risk Disclosure Document, which forms part of the investor registration requirement for dealing through brokers.
- Collect photocopies of all documents executed for registration as a client, immediately on its execution.
- Ensure that the documents or forms for registration as Client are fully filled in.
- Give clear and unambiguous instructions to their broker / agent / depository participant.
- Always insist on contract notes from their brokers/sub-brokers. In case of doubt in respect of the transactions, verify the genuineness of the same from the exchange.
- Always settle the dues through the normal banking channels with the market intermediaries.
- Adopt trading / investment strategies commensurate with their risk-bearing capacity as all investments carry some risk, the degree of which varies according to the investment strategy adopted.
- Be cautious about securities which show a sudden spurt in price or trading activity, especially low price stocks.
- Remember that there are no guaranteed returns on investment in the stock market.
- Read the terms and conditions and understand the risk factors associated with the commodity market investment
- Always keep copies of all investment documentation (e.g. application forms, acknowledgements slips, contract notes).
- Send important documents by a reliable mode (preferably through registered post) to ensure delivery.
- Ensure that they have money and will be able to pay, before you buy.
- Ensure that they hold securities and will be able to deliver, before they sell.
- Follow up diligently and promptly e.g. If the required documentation is not received within a reasonable time, investors must contact the concerned person at the Trading Member immediately.

Don’ts

Investors must not:

- Deal with unregistered brokers / sub - brokers, or other unregistered intermediaries.
- Execute any documents with any intermediary without fully understanding its terms and conditions.
- Leave the custody of their Demat Transaction slip book in the hands of any intermediary.
- Make any payments in cash
- Accept unsigned/ duplicate or incomplete contract notes
- Deal based on rumours or 'tips'.
- Get swayed by promises of high returns.
- Fall prey to promises of guaranteed returns.
- Get misled by guarantees of repayment of their investments through post-dated cheques.
- Get carried away by luring advertisements of any nature in print and electronic media.
- Blindly follow media reports on corporate developments, as some of these could be misleading.
- Blindly imitate investment decisions of others who may have profited from their investment decisions.
- Forgo obtaining all documents of transactions, in good faith even from people whom they ‘know’.
- Delay approaching concerned authorities in case of a dispute. Written complaints must be filed with the Exchange as soon as possible.

APPENDIX B SAMPLE QUESTIONS

1) The market where currencies are traded is known as the _____.
(a) Equity Market
(b) Bond Market
(c) Fixed Income Market
(d) Foreign Exchange Market

2) The USD/CAD (US – Canadian Dollars) currency pair settles in _____ basis.
(a) T+1
(b) T+2
(c) T+3
(d) T+4

3) A derivatives contract cannot exist without an _____.
(a) Exchange
(b) Underlying, be it equity, interest rate etc.
(c) Increase in volatility
(d) Increase in arbitrage

4) The first participants who traded in derivatives where those exposed to _____.
(a) Exchange rate risk
(b) Interest Rate risk
(c) Equity price risk
(d) Commodity price risk

5) OTC Derivatives stand for _____.
(a) Over the Counter Derivatives
(b) Outstanding Transaction Credit Derivatives
(c) Options Trade Credit Derivatives
(d) Commodity price risks

6) There are no formal rules or mechanisms for ensuring market stability and integrity, and for safeguarding the collective interests of market participants. Which type of Derivatives contracts are being referred to here?
(a) Over the Counter Derivatives
(b) Exchange traded derivatives
(c) Stock Futures
(d) Commodity derivatives

7) In a currency pair, term currency is in the:
(a) Numerator
(b) Denominator

8) Bids and offers are for the:
(a) Counter Currency
(b) Term Currency
(c) Base Currency
(d) All the above

9) A quotation for “dollar-rupee” means the dollar is the:
(a) Counter Currency
(b) Term Currency
(c) Base Currency
(d) All the above

10) For most currencies, bid and offer quotes are presented to the fourth decimal place usually called a:
(a) Value
(b) Quotes
(c) Unit
(d) Pip

11) The forward rate for any two currencies is generally a function of their spot rate and:
(a) Trade Difference
(b) Difference in the exchange rate
(c) Interest rate differential between them
(d) Both B and C

12) The underlying for futures contract that is presently permitted in India is:
(a) USD/INR
(b) Euro/Dollar
(c) Dollar/Yen
(d) Euro/INR

13) Closing price of USD/INR futures contract at the end of an active trading session will be calculated based on the:
(a) Weighted average of the last 30 trades done in the last 60 minutes
(b) Weighted average of the last 5 trades done in the last 60 minutes
(c) Weighted average of all the trades done in the last 30 minutes
(d) Simple average of the last 30 trades done in the last 30 minutes

14) In Exchange-traded currency futures contracts, who acts as a central counterparty to all trades?
(a) Government
(b) Regulator
(c) Market Maker
(d) Clearing House

15) If the numbers of trades during the last 30 minutes are less than 5, then the closing price is based on the:
(a) Weighted average price of the last 5 trades executed during the day.
(b) Weighted average price of the last 10 trades executed during the day.
(c) Weighted average price of the last 15 trades executed during the day.
(d) Weighted average price of the last 25 trades executed during the day.

16) If the numbers of trades during the day are less than 5, then the closing price is taken as the:
(a) Weighted average price of the last 3 trades executed during the day.
(b) Weighted average price of the last 4 trades executed during the day.
(c) Weighted average price of the last 2 trades executed during the day.
(d) Weighted average of all trades executed during the day

17) Exchanges in India trade in Currency Options. True or False?
(a) True
(b) False

18) Arbitragers take advantage of ____ in the markets?
(a) Hedgers
(b) Volatility
(c) Mispricing
(d) Speculators

19) On 15th January Mr. Arvind Sethi bought a January USD/INR futures contract which cost him Rs.43,000. Each USD/INR futures contract is for delivery of USD1000. The RBI reference rate for final settlement was fixed as 43.10. How much profit/loss did he make?
(a) (+) Rs. 1000
(b) (+) Rs. 100
(c) (-) Rs.100
(d) (-) Rs. 1000

20) If you are bullish about the Indian Rupee, you would ____.
(a) Short USD/INR currency futures
(b) Go long USD/INR currency futures
(c) Buy Dollars
(d) Say neutral since markets may turn volatile

21) Presume Mr. A is expecting a remittance for USD 5000 on 29 August. Wants to lock in the foreign exchange rate today so that the value of inflow in Indian Rupee terms is safeguarded. Mr. A can do so by _____.
(a) Buying five contracts of USD/INR futures
(b) Selling five contracts of USD/INR futures
(c) Selling five thousand contracts of USD/INR futures
(d) Buying five thousand contracts of USD/INR futures

22) On August 1, 2008, an active trader in the currency futures market expects INR will appreciate against USD, caused by softening of crude oil prices in the international market and hence helping India's trade balance. On the basis of his view, he should:
(a) Go long on USD/INR futures contract
(b) Go short on USD/INR futures contract
(c) Do nothing
(d) Both A and B

23) One year interest rates in US and India are say 5% and 10% respectively and the spot rate of USD in India is Rs. 43. Then one year USD/INR futures fair value is :
(a) Rs. 41.25
(b) Rs. 43.70
(c) Rs. 45.20
(d) Rs. 41.63

24) Under normal circumstances the Futures price trades at a ____ price than the Spot price :
(a) Higher
(b) Lower
(c) Same price as spot
(d) Depends on the type of contract

25) Clearing Members are entities in the clearing and settlement system of the Currency Derivatives Segment. True or False?
(a) True
(b) False

26) There are designated currency future's market makers assigned for making markets in the Currency Derivatives Market Segment. True or False?
(a) True
(b) False

27) For stop-loss buy order, the trigger price is _____ the limit price.
(a) Less than
(b) Greater than
(c) Equal to
(d) None of the above

28) If a day order does not find a match in the trading system, it is _____
(a) Removed from the trading system after seven days
(b) Removed from the trading system at the end of the day
(c) Removed from the trading system on the expiry day
(d) Removed from the trading system when the buyer / seller wishes

29) A client of a trading member is required to enter into _____ with the trading member before he can commence trading.
(a) An understanding
(b) An arrangement
(c) Negotiations
(d) An agreement

30) A trading member has more than one user.
(a) True
(b) False

31) A Trading Member can trade _____
(a) on their own account
(b) on behalf of their clients
(c) on behalf of participants
(d) all of the above

32) While entering a stop loss order, one needs to specify the _____
(a) High price
(b) Trigger price
(c) Low price
(d) Price band

33) The limit price is necessarily set higher than the market price irrespective of buy/sell trade.
(a) True
(b) False

34) For stop-loss buy order, the trigger price is _____ the limit price
(a) Less than
(b) Greater than
(c) Equal to
(d) None of the above

35) An Indian refiner enters into a contract to export 1000 barrels of oil with payment to be received in US Dollar (USD) in next three months. His risk is:
(a) When INR weakens, he makes a loss
(b) When INR weakens, he makes a profit
(c) When INR strengthens, he makes a profit
(d) When INR strengthens, he makes a loss

36) An exchange, during a trading session disseminates _____ prices through its trading system in real time basis
(a) open
(b) high and low
(c) last traded
(d) all of the above

37) For a USD/INR Currency Futures contract, the previous day's settlement price is Rs.41.0000 and today's settlement price is Rs.40.0000. An investor's 'Sell' position of 30 contracts is brought forward from the previous day. What will be his market to market settlement value?
(a) (-) Rs. 30,000
(b) (+) Rs. 30,000
(c) (-) Rs. 3,000
(d) (+) Rs. 3,000

38) Proprietary position : Buy 20*1000*40.0000 indicates :
(a) A Buy position of 20 contracts with contract size of 1000 and a price of Rs. 40.0000
(b) A Buy position of 1000 contracts with contract size of 20 and a price of Rs. 40.0000
(c) A Buy position of 2000 contracts with contract size of 1000 and a price of Rs. 40.0000
(d) A Buy position of 20000 contracts a price of Rs. 40.0000

39) In the Currency Derivatives Segment, clients' positions are arrived at by summing together _____positions of each individual client.
(a) Gross (buy + sell)
(b) Net (buy - sell)
(c) Net or Gross
(d) Client's positions are not taken into account in the Currency Derivatives Segment

40) For a USD/INR Currency Futures contract, the previous day's settlement price is Rs.40.0000 and today's settlement price is Rs.41.0000. An investor's 'Sell' position of 50 contracts is brought forward from the previous day. What will be his market to market settlement value?
(a) (-) Rs. 50,000
(b) (+) Rs. 50,000
(c) (-) Rs. 5,000
(d) (+) Rs. 5,000

PLEASE NOTE THAT THESE ARE ONLY SAMPLE QUESTIONS PROVIDED AS A GUIDE TO CANDIDATES AND MAY NOT BEAR ANY RESEMBLANCE TO QUESTIONS IN THE CERTIFICATION EXAMINATION.

ANSWERS

1	(d)	21	(b)
2	(a)	22	(b)
3	(b)	23	(c)
4	(d)	24	(a)
5	(a)	25	(a)
6	(a)	26	(b)
7	(b)	27	(a)
8	(c)	28	(b)
9	(c)	29	(d)
10	(d)	30	(a)
11	(c)	31	(d)
12	(a)	32	(b)
13	(c)	33	(b)
14	(d)	34	(b)
15	(a)	35	(d)
16	(d)	36	(d)
17	(b)	37	(b)
18	(c)	38	(a)
19	(b)	39	(b)
20	(a)	40	(a)

Disclaimer: Please note that NISM modifies the list of sample questions from time to time. Candidates are advised to compare questions and answers with the latest version of sample questions from the NISM website.

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APPENDIX C EXCHANGES TRADING IN CURRENCY FUTURES

Bombay Stock Exchange (BSE)

Bombay Stock Exchange Ltd., popularly known as BSE, is the oldest stock exchange in Asia with a rich heritage. It was established as "The Native Share & Stock Brokers' Association" in 1875. BSE's pivotal and pre-eminent role in the development of the Indian capital market is widely recognized. Today, BSE is the world's number '1' exchange in terms of the number of listed companies and the world's 5th in transaction numbers. The BSE Index, SENSEX, is India's first stock market index that enjoys an iconic stature, and is tracked worldwide. BSE provides an efficient and transparent market for trading in equity, debt instruments and derivatives. It has a nation-wide reach with a presence in more than 359 cities and towns of India. BSE also offers Currency Futures trading (US Dollar- Indian Rupee contracts currently) through its Currency Derivatives Segment christened BSE-CDX. For more information please visit www.bseindia.com.

MCX Stock Exchange Ltd. (MCX – SX)

MCX Stock Exchange Ltd. (MCX – SX) has been promoted by Multi Commodity Exchange of India Ltd. (MCX) and Financial Technologies (India) Ltd (FTIL). MCX - SX's currency derivatives segment commenced operations on October, 2008, within the regulatory framework of Securities & Exchange Board of India (SEBI) and Reserve Bank of India (RBI). The all-India electronic trading platform of MCX-SX offers participants the benefits of high liquidity, trade transparency, easy online accessibility and counterparty guarantee through MCX – SX Clearing Corporation Ltd. (MCX-SX CCL), established on the lines of global clearing corporations. MCX-SX has emerged as the first exchange in India to provide currency futures rates on a real-time basis through mobile across all service providers, to publish a primer on currency futures trade for guidance of interested parties and to launch websites in various regional languages. MCX – SX has also signed MOUs with various trade associations across India. For more information please visit www.mcx-sx.com.

National Stock Exchange (NSE)

National Stock Exchange (NSE) commenced operations in 1994 and provides a nationwide electronic trading platform for various types of securities for investors under one roof. These instruments are available for trading under different segments: Wholesale Debt Market Segment; Capital Market Segment, Futures and Options Segment and Currency Derivatives Segment. Derivatives trading at NSE commenced in the year 2000, and the product base includes trading in futures and options on S&P CNX Nifty Index, CNX IT Index, Bank Nifty Index, CNX Nifty Junior Index, CNX 100 Index, Nifty Midcap 50 Index, S&P CNX Defty Index ; futures and options on around 200 single stocks; and currency futures on the USD/INR contracts presently. NSE's trading presence is now in over 1,500 cities across India. NSE ranks in the world, in terms of number of transactions executed on a stock exchange; 2nd in the world, in terms of the number of contracts traded in Single Stock Futures; 3rd in the world, in terms of number of contracts traded, in Stock Index Futures; and 2nd in Asia, in terms of number of contracts traded, in equity derivatives instrument. For more information please visit www.nseindia.com.

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LIST OF ABBREVATIONS

AG	Aggregate Gap
CAD	Canadian Dollar
CBOT	Chicago Board of Trade
CM	Clearing Member
CME	Chicago Mercantile Exchange
CRAR	Capital Risk Adjusted Ratio
CRR	Cash Reserve Ratio
DP	Depository Participant
ETCF	Exchange Traded Currency Futures
FEDAI	Foreign Exchange Dealers Association of India
FEMA	Foreign Exchange Management Act
FIFO	First-in First-out
FII	Foreign Institutional Investor
FX	Foreign exchange
GBP	Great Britain Pound
GDP	Gross Domestic Product
ICAI	Institute of Chartered Accountants of India
INR	Indian Rupee
IOC	Immediate or Cancel
KYC	Know Your Customer
LTP	Last Traded Price
MTM	Mark-to-Market
NOP	Net Open Position
NPA	Non Performing Assets
NRI	Non-resident Indian
OTC	Over-the-Counter
PAN	Permanent Account Number
PCM	Professional Clearing Member
Pro/Cli	Proprietary order / Client order
RBI	Reserve Bank of India
SC(R)A	Securities Contracts (Regulation) Act, 1956
SDR	Special Drawing Rights
SEBI	Securities and Exchange Board of India
SPAN	Standard Portfolio Analysis of Risk
STT	Securities Transaction Tax
TCM	Trading-cum-Clearing Member
TM	Trading Member
TWS	Trader Workstation
UCC	Unique Client Code
USD	Us Dollar
USD/INR	US Dollar – Indian Rupee Forex Transaction
VaR	Value-at-Risk

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