

## An Empirical Analysis on Currency Future Trading Practices in the Indian Stock Exchange

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**Abstract:** Currency Future derivative introduction in the Indian stock exchanges is a new land mark achievement in the history of forex trading. In India, rupee is previously exchanged against foreign currency either through Reserve Bank of India (RBI) or not through Over-The-Counter (OTC) market. But with the currency future introduction at National Stock Exchange (NSE) of India on 29th August 2008 and MCX Stock Exchange (MCX-SX) on 7th October 2008 has facilitated the individuals and firms involved in the foreign trade. Two of these exchanges has seen huge surge in trade volume with huge open interest built in the trade activities giving high liquidity system for the traders to hedge and liquidate their trade position in the volatile forex market. This paper presents the comparative study on currency future trading NSE and MCX-SX.

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### INTRODUCTION

Currency Future (CF) introduction in the Indian stock exchanges is a land mark history in the forex market trading. It is a derivative product of an underlying asset value of foreign currency exchange rate. In the early days the foreign currency exchange is being traded through Over-The-Counter (OTC) or Reserve Bank of India (RBI) by large scale participants through banks, which requires large amount of margin and less liquidity in nature. Due to this RBI and Securities Exchange Board of India (SEBI) had appointed a standing committee to enhance the foreign currency exchange trading system by constituting currency future derivatives trading in the stock exchanges. On follow-up the action, the committee headed under the chairmanship of L.C. Gupta had recommended for the introduction of currency future in the Indian stock exchanges.

Initially derivative trading is being introduced at National Stock Exchange (NSE) to trade at Currency Futures in USD-INR on 29th August 2008 and later it is being introduced in the both Bombay Stock Exchange (BSE), and MCX Stock Exchange (MCX-SX) on 1st October 2008 and 7th October 2008 respectively. Although, currency future trading is introduced at all these exchanges, NSE and MCX-SX only got success in currency future trading, but not in BSE. These two successful stock exchanges created wide market operation with spread in currency future trade volume with huge built-up in open interest positions. This has created enormous liquidity system for the traders belonging to different segments.

More over primary purpose of hedging opportunity is being created for the foreign exchange traders in the volatile market. During the introduction of currency future trading in India, global economy had a problem of slowdown and fall of capital market too crashed downward in a big way. But the currency future trading has helped Indian firms to hang in the forex market during volatility period through effective trade hedging mechanism. It had helped Indian firms to maximise their profits by bring down their losses in the foreign exchange market through currency future trade.

Considering a big success of currency future at NSE and MCX-SX, the study is being initiated to identify the growth trend of both of these exchanges. "Many Small and Medium Enterprises (SMEs) doing business overseas have tremendous potential. However, they need a standard financial instruments and transparent platform to manage their currency risks better?" – Rakesh Kapoor, Banker, Treasury Department.

### Currency Future

Currency future trading first started at the Chicago Mercantile Exchange (CME) in 1972, less than one year after the system of fixed exchange rates was abandoned along with the gold standard failure. Some commodity traders at the CME did not have an access to the inter-bank exchange markets in the early 1970s, when they believed that significant changes were about to take place in the currency market. They established the International Monetary Market (IMM) and launched trading in seven currency futures on

May 16, 1972. The Philadelphia Stock Exchange (PHLX) provided the impetus in December 1982 when it listed the first currency option contract (Pound Sterling/USD). The OTC markets in currency grew centered in London from the early 1980s. Currently \$43 billion value contract were traded every day at IMM division of CME.

In India, the currency future contract trading started with the purpose of creating more enhanced trading system which is been more transparent in system of foreign exchange management.

#### **National Stock Exchange (NSE)**

The National Stock Exchange (NSE) of India was incorporated in November 1992 is known for its innovation and best practices in the financial market. During 1994 NSE started trading in whole sale debt and capital market activities in equity segment, becoming largest exchange in the country within a year. In 2000 internet trading was introduced and later came out with index future trading in the derivative segment. It was the initiative in the derivative trading in the NSE turnout to be an important turning point with index options and individual securities is being launched. It took another eight years for NSE to launch futures trading in the currency exchange in the Forex market Indian currency (INR) against US dollar on 29th August 2008. Interestingly NSE is has introduced many such products and services year on year all turn out to be a great success.

#### **MCX Stock Exchange (MCX-SX)**

Multi Commodity Stock Exchange of India Ltd (MCX) established new stock exchange MCX Stock Exchange (MCX-SX) in 18th August 2008 under the regulatory framework of SEBI. MCX-SX introduced Currency Futures trading in 7th October 2008 with approval from SEBI and RBI. The exchange received good support from the traders under the currency futures flat form with a average daily turnover increase from Rs.355.88 crores in October 2008 to Rs. 8082.05 crores in November 2009. This exchange helps to broad range of financial market participants involved in hedging of their derivatives of hedgers – exporters, importers, Corporates, banks, investors, and arbitrageurs. MCX-SX desired to work on continuous innovation to introduce products in diverse needs of market participants with expansion into equity, debt, interest rates, index, and exchange traded funds etc with regulatory clearances. Its philosophy is “Systematic Development of Markets through Information, Innovation, Education and Research”.

#### **Frame work of the study**

This study deals upon the derivatives, it deals with the currency future derivative, spot, swaps, forwards, future contract, hedging, volatility, and risk management. This paper traces more about the future

contract used for trading against different currencies in the foreign exchange market. Derivative is a financial instrument derived from underlying assets of currency. Forward is contract agreed between buyer and seller to settle underlying asset on a specific date at today's agreed price. Option is a contract between buyer and seller which gives right to buy or sell the underlying assets in a derivative market. Swap is a financial derivative used for counter exchange of derivative by the buyers or sells on the benefit both the parties. Future contract is a promise to exchange a product on a promised delivery date against cash. In currency future contract is made between two parties on a agreed rate. The settlement of the contract will be made in cash in Indian Rupee as per settlement price of Reserve Bank of India reference rate on the last trading day of the month. Other products of derivatives include Options, Swaps.

#### **Literature Review**

The literature review provides foundation for the study on currency future derivatives. During this study some of the literatures have proved to be a supportive in bringing out this paper. The literatures discuss on the concepts and introduction of currency future derivative in the stock exchanges of NSE and MCX-SX. It is estimated that the developing nations would join the systematic exchange system which is high liquid and flexible for the traders to protect their risk in the foreign exchange rate differences through this mechanism. Foreign exchange which had long history when nations moved on from fixed exchange system to floating rate exchange system. Reviews have been collected only from 2008 as trade of currency future started only from August 2008 in India. Due to that minimum number literature is available. Some the review of earlier studies opinion

SB Kamashetty (2008), ‘Exchange traded currency futures: A bird’s eye view’, provides details on currency futures report presented by Reserve Bank of India (RBI) and Securities Exchange Board of India (SEBI) in issues related to exchange traded currency futures introduction into stock exchanges. It also discuss on the guidelines on trading of currency futures in the stock exchanges.

Manoj Anand and K.P. Kaushik (2008), ‘Management Motivations for Use of Foreign Currency Derivatives in India’, examines the management motivation of foreign currency derivatives usage in corporate India. For this study 640 companies are selected having using currency derivatives or documented foreign exchange risk management practices at their companies. It is found that management of the studied companies find currency future derivative is critical for their risk exposure in the foreign trade and volatility of price

movement in the foreign market trade. They find currency future as hedging instrument.

Anuradha Guru (2009), 'Forex Derivative Markets in India: Developments thus far and road ahead', exchanges the view on forex derivative market development from early period of currency system till the currency trade in national stock exchanges in India. It presents about the trade activities at NSE.

Further more studies also available on currency derivative but not specific on currency future at National Stock of India (NSE). Based on this study is being initiated to find out the facts of trade practices at NSE and MCX-SX.

#### **Need and purpose the research**

The foreign currency market continues with great deal of volatility which makes traders more unsecure in the international trade. Recently introduced product of currency future makes more comfort for the traders to hedge their trade exposure to foreign currencies. Concerning to these factors currency future seems to be more innovative product to both individuals as well as to the commercial traders or to be a business entity that makes trade against foreign currency trade. This study is aimed to know how investors behave towards currency future derivative especially in trading in two different exchanges in India in terms of trade volumes and open positions. Next to identify the reason behind the success of these exchanges with continuous improvement in the volume of the trade and to know how these exchanges have been rewarded.

The participants in this financial currency future derivative include exporters, importers, corporates, banks, investors and arbitrageurs. In India, there are well known three exchanges involved in the foreign currency futures trading, but people behave differently towards these exchanges, because people

trade mainly through NSE or MCX-SX, it's being compared to BSE.

#### **Methodology of the study**

Methodology adopted for this study is well structured along simple line. The study is used to compare the growth trend of the currency future trade in both the exchanges of NSE & MCX-SX in India. For this study secondary data is collected from the NSE and MCX-SX. The variables selected for the study is exchange rates, trade volume, and open interest against US dollar. The period of study is during August 2008 to January 2010 as data available still this period only. Tools used for this study is simple average, the percentage method and well represented through graphical charts.

#### **Hypothesis of the study**

The study has set a hypothesis of comparing a number traders which have influence on the growth of the business towards currency derivative in both the exchanges, second, it is assumed that positive trend will have effect on the traded volume and open interest position of the contracts trade, and price formation. With this assumptions study is being conducted to know the growth trend of currency future trade in NSE and MCX-SX stock exchanges.

#### **Currency Future Trade Standards**

The exchange of currency is between Indian currency (INR) and US dollar (USD). Market time of Trade is between 9am to 5pm. The contract size of the derivative is US 1000 with ticker size of 0.25 or INR 0.0025. With the maximum expiration period of 12 months for every contract traded. Final settlement is being done in cash on the last working day of the month. The final settlement is made based on the reference rate which will be fixed by RBI prior to two working days.

<b>Currency Future Trading Standards and Specifications</b>	
Underlying	USD - INR
Trading Hours (Monday to Friday)	09.00 am to 05.00pm
Contract Size	USD 1000
Tick Size	0.25 paisa or INR 0.0025
Trading Period	Maximum expiration period of 12 months
Contract Months	12 near calendar months
Contract Expiration Date	Last working day of the month (subject to holiday calendars)
Last Trading Day	Two working days prior to contract expiration date

Source: NSE

#### **Comparative analysis of Currency Future Trade**

Currency future trade is one of the best actively traded derivative in the NSE and MCX – SX. The comparison between NSE and MCX-SX is being done to identify the future trade practices in both the

exchanges. In this study the data mainly considered was traded contracts, open interest, and contract price.

#### **Currency Future Traded Volume**

The data given in the table number 1 and 2 which resresents the price formulation, traded contracts, and position opened by the clients.

Introducing currency future for trade in NSE on 29th August 2008, first contract of September month had 19 days of trade. The first ever currency future series had 8,70,896 contracts being traded. In the next month October contract have increased to 18,47,943 which is 112.19 percent rise. Currency future contract trade maintained its consistent growth momentum for 17 months of its trade with increase from 8,70,896 contracts in September 2008 to 5,02,20,276 contracts in January 2010 with the rise of 56.57 percentage. Only during the April 2009 and August 2009 month contract series currency future trade contract is less than the previous month contract (refer Table: 1).

Comparing the trade history of MSX-SX data which show high growth in the business of currency future trade. In MCX-SX currency future is being introduced only in the month of 7th October 2008, during this period of the contract month only 14 days of trading is being done with a contract volume of 8,23,931. Same next month November contract increased to 22,42,547, this was an increase of 172 percent rise. Overall MCX-SX have maintained consistent growth momentum for its 16months period of trade with 8,23,931 contracts traded in October 2008 rise to 4,84,52,819 contracts in January 2010 contract series. This was an phenomenal growth of 57 percent.

A common phenomenon of NSE and MCX-SX is that both had seen low volume of ing trades during the month of April 2009 and August 2009 contract series.

**Open Interest Position**

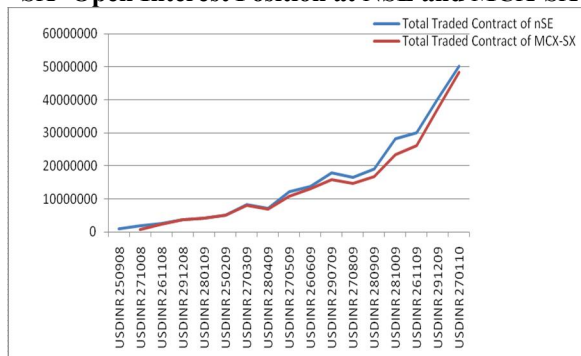
Open interest position is being compared to identify the trade positions carried on by the traders during the end of the day. For this study, average daily positions considered for knowing the carry on interest by the currency future traders in both NSE and MCX-SX. Open interest positions seen huge build-up in trade position in both the exchanges in all the contract periods, except in the month of April 2009 and in September 2009 in NSE. In MCX-SX shows open interest position have decreased during March 2009 and May 2009 contract series. Remaining period shows build-up interest in currency future contract trades.

**Currency Exchange Rate**

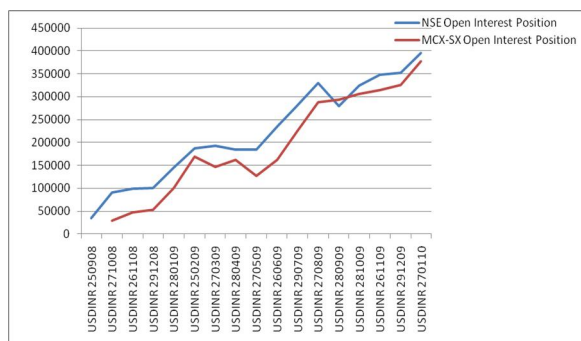
The exchange rate volatility of the currency future brought huge volatility during the period of the currency future trade introduction. When the currency future trade introduced exchange rate was around 45.47 INR per dollar exchange it moved on till 51.31 during March 2009 later fallen to 46 INR per dollar

exchange in January 2010. It shows more than 10 percent increase and fall in the exchange rate within the 17 months period of currency future trade. This appreciation or depreciation of the trade have created volatility in the exchange rate.

**Numbers of Contracts Traded at NSE and MCX-SX- Open Interest Position at NSE and MCX-SX**

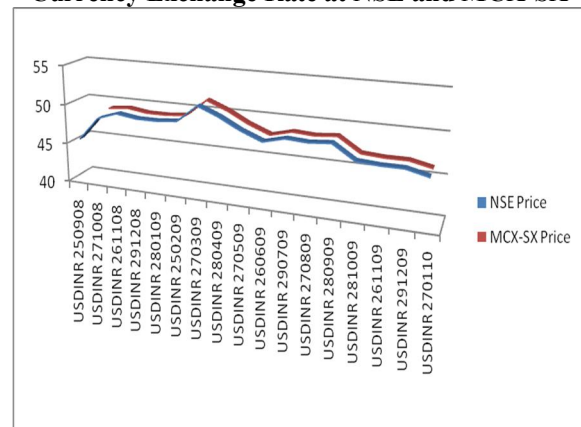


Source: Compiled from the original data



Source: Compiled from the original data

**Currency Exchange Rate at NSE and MCX-SX**



Source: Compiled from the original data



**Table: 1- Currency Future Trend in NSE**

S.No	Contract Month	No of Trading Days	Open Price	High Price	Low Price	Close Price	Average Daily Settlement Price	Total Contracts Traded	Average No. of Contracts	Average Open Interest
1	USDINR 250908	19	45.33	45.66	45.17	45.47	45.47	870896	45836	35464
2	USDINR 271008	20	48.22	48.64	48.05	48.40	48.40	1847943	92397	91347
3	USDINR 261108	20	49.30	49.64	48.97	49.26	49.25	2535140	126757	98889
4	USDINR 291208	20	48.90	49.17	48.53	48.88	48.88	3671963	183598	100389
5	USDINR 280109	20	48.84	49.08	48.65	48.89	48.89	4045142	202257	145398
6	USDINR 250209	19	49.10	49.24	49.00	49.14	49.14	5062811	266463	186952
7	USDINR 270309	19	51.25	51.52	51.02	51.31	51.31	8282460	435918	193021
8	USDINR 280409	16	50.25	50.44	50.04	50.24	50.24	7067694	441730	183970
9	USDINR 270509	20	48.94	49.10	48.67	48.87	48.87	12086620	604331	183985
10	USDINR 260609	22	47.77	47.97	47.64	47.81	47.81	13813881	627903	234587
11	USDINR 290709	23	48.46	48.64	48.33	48.49	48.49	17947229	780314	281337
12	USDINR 270809	20	48.30	48.45	48.20	48.33	48.33	16553856	827692	329568
13	USDINR 280909	19	48.59	48.69	48.46	48.58	48.57	19049222	1002591	278980
14	USDINR 281009	20	46.82	46.95	46.68	46.82	46.82	28150754	1407538	323755
15	USDINR 261109	20	46.68	46.81	46.47	46.64	46.63	30104770	1505238	347751
16	USDINR 291209	21	46.66	46.76	46.56	46.65	46.65	40245109	1916434	352110
17	USDINR 270110*	18	46.05	46.14	45.89	46.01	46.01	50220276	2790015	395396

USDINR 270110\* contract does include last two trading day data

Source: *Complied from the original ata*

**Table: 2 - MCX-SX Currency Future Trading Data**

S.No	Contract Month	No of Trading Days	Open Price	High Price	Low Price	Close Price	Average Daily Settlement Price	Total Traded Contracts	Average Contracts Traded	Average Open Interest
1	USDINR 271008	14	49.12	49.44	48.67	48.99	48.99	823931	58852	29310
2	USDINR 261108	20	49.34	49.60	48.93	49.25	49.25	2242547	112127	48031
3	USDINR 291208	20	48.77	49.14	48.49	48.88	48.88	3773052	188652	52921
4	USDINR 280109	20	48.84	49.06	48.66	48.89	48.89	4183347	209167	100375
5	USDINR 250109	19	49.05	49.24	48.97	49.14	49.14	5130238	270012	169656
6	USDINR 270309	19	51.26	51.52	51.04	51.31	51.31	8132222	428011	146030
7	USDINR 280409	16	50.26	50.48	50.02	50.24	50.24	6826687	426667	162416
8	USDINR 270509	20	48.90	49.09	48.66	48.87	48.87	10882579	544128	126956
9	USDINR 260609	22	47.77	47.97	47.63	47.81	47.81	13007847	591265	161431
10	USDINR 290709	23	48.46	48.64	48.33	48.49	48.49	15797002	686826	224667
11	USDINR 270809	20	48.32	48.46	48.19	48.32	48.32	14589435	729471	288517
12	USDINR 280909	19	48.57	48.70	48.47	48.57	48.57	16832101	885900	293436
13	USDINR 281009	20	46.89	47.02	46.68	46.82	46.82	23364389	1168219	306343
14	USDINR 261109	20	46.67	46.80	46.50	46.63	46.63	26152973	1307648	313799
15	USDINR 281209	21	46.65	46.76	46.56	46.65	46.65	37437923	1782758	325307
16	USDINR 270110*	20	46.09	46.18	45.94	46.06	46.06	48452819	2422640	377167

USDINR 270110\* contract does include last one trading day data

Source: *Complied from the original data*

### Findings

The currency future derivative trade at National Stock Exchange and MCX- Stock Exchange shows positive growth pattern in the trade history of the data. The following information have been noted during the study,

Currency Future traded in NSE and MCX-SX shows positive growth pattern for the past 17 months of trade.NSE found to be a leader with large volume of contracts begin traded in the exchange.

From introduction of currency futures contract volumes have grown to 56 percent in NSE and 57 percent in MCX-SX.

There is a positive correlation with volume in both the exchanges of currency future trade Strong build-up in open interest position shows primarily traders have interested to go long or short position of the trade, more than that it proves that traders have good trust with these exchanges and liquidity nature of the trade. Other it is difficult to make trade in the derivative segment, once if it is found to be illiquid trade derivatives.

### Conclusion

This study presents on the growth pattern of the currency future trade in NSE and MCX-SX in India. It shows the importance of the currency future for the foreign traders in the EXIM market to hedge

their trade activities. This growth is due to inceptional awareness of people and currency future trading have implused traders to start trading in this for averting the exchange rate risks otherwise that would erode the the profit of the business. So over trend of the comparative analysis shows positive volume of business with strong open interest position shows good sign of future trade on Currency future derivative product.

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