Currency Derivatives Trading Mechanism and its Impact on Retail Investor's Portfolio in the Indian Financial Market

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Abstract

Currency derivatives are futures and options contracts in which a definite sum of a specific currency pair is dealt on a pre-set date in the future. Trading currency derivatives is like dealing with stock and futures options. However, the underlying resources are currency pairs such as US Dollar – Indian Rupee (USDINR) or Euro Indian Rupee (EURINR) and not stocks. Currency options and currency futures are transacted on the surroundings of foreign exchange market. The foreign exchange rate is the worth of a foreign currency in contrast to the home currency. The core partakers in currency dealing in India are banks, corporations, exporters and importers. The main objective of this study is to analyse the trading mechanism of currency derivatives in India regarding volume of contracts and number of trade and its performance between the period May 2021 to April 2022. The findings of the study make a case for improving market access to enhance competition which may result in better currency derivative trading for investors.

Keywords: *Currency Derivatives,* Derivatives Trading, *Foreign Exchange Market, Investors*

1. Introduction

During the past two decades, there has been phenomenal growth in trade and industry the world over. Gone are the days where capital used to remain within the boundaries of a nation. In this era of globalization and liberalization, technology, capital and other resources are moving across the boundaries of a nation and increase the volume of international trade. There have been rapid changes in corporate, bank and investment finance in recent years and new set of financial instruments called "Derivatives" have come into being as the name suggests, derivative instruments are financial derivatives whose value is based on underlying assets or securities. Derivatives are financial agreements that stem their value from the value of the underlying asset. The fundamental asset can be equity, bonds, currencies, commodities or added assets.

Currency derivatives are futures and options contracts in which a definite amount of a specific currency pair is dealt on a pre-set date in the future. Currency derivatives are monetary contracts (futures, options and swaps) which have no worth of their own. They originate their value from the value of the underlying asset, in this circumstance, currencies. Currency derivatives are contracts to purchase or trade currencies at a forthcoming date. The main categories of currency derivatives are forward contracts, futures contracts, options and swaps. Transacting currency derivatives is like dealing with stock and futures options. Though, the underlying assets are currency pairs such as USDINR or EURINR and not stocks. Currency options and currency futures are transacted on the surroundings of foreign exchange market. The foreign exchange rate is the worth of a foreign currency in contrast to the domestic currency. The main contestants in currency trading in India are banks, companies, exporters and importers. In India, Currency derivatives are used to protect dealings in contradiction of currency fluctuations from foreign currencies such as the Euro, Dollar and Yen. Business societies frequently practice these contracts for definite currencies if they are recurrently subject to imports and exports.

2. Review of Literature

According to **Deepika Khude (2021)**, reports that in spite of having an average day-to-day revenue of Rs. 44,859 crores, currency derivatives in India are mostly unfamiliar to small retail investors. While currency derivatives in India are mainly used for evading, retail investors can generate wealth in the currency derivatives segment by speculating and arbitraging. According to **Motilal Oswal (2021)**, commodity broker states that even a market that has small businesses and even individuals can use to hedge their currency exchange risk. **Samco (2021)**, SEBI authorised currency broker expresses Currency derivatives trading is no longer a difficult task and can be done from the comfort of one’s home, with the best forex broker in India. **DK Aggarwal (2020)**, in Economic Times states that volumes in the currency segment of Indian exchanges have risen substantially since inception. Furthermore, the USD-INR pair contracts offer marvellous chances to customise one's currency trades.

3. Statement of the Problem

In this indeterminate domain, when most of the worldwide central banks have retained their interest rates low for a lengthier period of time, the most eye-catching path in financial markets is revolving out to be forex transaction. When major central banks continue on the same page, instability in tradable forex pairs decreases substantially, making it productive for small traders who want to experiment in it. Certainly, currency trading needs one to dive deeper into numerous features of financial and fiscal policies of the economy for the currency one is dealing with. The chances in forex trading are huge based on the round-the-clock transaction window in numerous time zones across the world. Researchers have conducted very less study among the currency derivatives and Indian market. Thus, research was conducted to analyse the trading mechanism of currency derivatives in India regarding volume of contracts and number of trade and its performance including its merits and demerits.

3. Objectives of the study

1. To study the Trading Mechanism of Currency Derivatives in India and its merits and demerits.
2. The main objective of this study is to analyse the trading mechanism of currency derivatives in India regarding volume of contracts and number of trade and its performance between the period May 2021 to April 2022.

4. Research Methodology

The methodology adopted for this study is based on Secondary data which are collected from various Financial research reviews, National Stock Exchange of India and Reserve Bank of India websites and the outcomes got thus have been analysed and inferred.

5. Results and Discussion

I. Trading Mechanism of Currency Derivatives in India and its merits and demerits

According to **NSE (2022)**, National Stock Exchange (NSE) of India was the first exchange to have obtained an in-principle endorsement from Securities Exchange Board of India (SEBI) for setting up currency derivative section. The exchange propelled its currency futures transaction platform on 29th August, 2008. Currency futures on US Dollar – Indian

Rupee (USD-INR) were announced for trading and then the Indian rupee was permitted to transact in contradiction of additional currencies such as Euro, Pound Sterling and the Japanese Yen. Currency Options was presented on October 29, 2010. Further, Options trading on Euro Indian Rupee (EURINR), Great Britain Pound Indian Rupee (GBPINR) and Japanese Yen Indian Rupee (JPYINR) was also announced on February 27, 2018. Cross Currency Futures and Options contracts on Euro US Dollar (EUR-USD), Great Britain Pound US Dollar (GBP-USD) and US Dollar Japanese Yen (USD-JPY) are also presented on February 27, 2018. Currency Derivatives Trading is appropriate for those fascinated in plummeting their foreign exchange rate risk. Currency Derivatives in India deliver a package of chances for a number of players. Investors should take this chance to efficiently achieve their international exchange rate risk with currency transaction in India.

There are two means one can trade in currency derivatives in India-

i. Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) are two nationally recognized Forex exchange podiums that deal in currency derivatives.
ii. Capitalize in currency derivatives through stockbrokers.

A). Types of currency derivatives:

Currency derivatives contracts can be of two kinds. The trader frequently syndicates the two kinds to manage their portfolio risk steadily:

a). Futures: In this kind of contract, the traders lock in a stated price for a specific currency to purchase or trade at a forthcoming date, irrespective of the price of that currency in the open market at that period.

b). Options: Alike futures, options let counterparties to purchase or trade the currency asset at a pre-decided price at a future date. But contrasting futures, the counterparties may select not to trade by the time the contract terminates. Thus, options provide the rights to purchase or trade, but not the responsibility.
Options, in turn, are of two kinds:

i). Call option: This provides the owner the right to *purchase* the fundamental asset at a future date and a pre-decided price, but not indebted.

ii). Put option: Contrary to the call option, the put option provides the owner the right to *trade* the fundamental asset at a future date and a pre-decided price, but not the responsibility to do so.

c). Currency Swaps: A currency swap is an interest rate swap where the two legs to the swap are denominated in diverse currencies. Moreover, the parties may approve to exchange the two currencies generally at the prevalent spot exchange rate with an arrangement to inverse the exchange of currencies, at the similar spot exchange rate, at a fixed date in the future, usually at the maturity of the swap.

d). Currency Options: A currency option is a contract where the buyer of the option has the right but not the responsibility to either buying (call option) or trading (put option) and the trader (or writer) of the option agrees to trade (call option) or buying (put option) an agreed amount of a stated currency at a price decided in advance and denominated in another currency (known as the strike price) on a stated date (European option) or by decided date (American option) in the future.

Table 1 Relationship Between Options And Currency Pairs

Purchase a call option	The price of the currency pair is likely to increase
Purchase a put option	The price of the currency pair is likely to decrease
Vend a call option	The price of the currency pair is likely to decrease
Vend a put option	The price of the currency pair is likely to increase
Source: Compiled by the Author	

Interpretation: The above table 1, demonstrates the relationship between options and currency pairs.

B). Benefits and Limitations of Currency Derivatives

Currency derivatives are financial instruments that aid in familiarizing to market fluctuations through:

i. **Hedging** – Hedging safeguards the trader from foreign currency contact and decreases losses by means of currency derivatives. It also aids exporters and importers to make profits or cover up losses during currency variations.

ii. **Trading** – In trading, Currency and futures options permit one to trade on short-term market actions while keeping an eye on the course of movement. Currency Derivatives aid traders to harvest profits from the forex market by merely manoeuvring the savings.

iii. **Arbitrators** - Nearly markets and exchanges allow one to take benefit of currency exchange rates by transacting currency derivatives. Even a negligible price variance can harvest returns in currency derivatives.

iv. **Speculating-** Traders can screen the course of the price drive of the currency asset in the future and take suitable positions.

v. **Leverage:** Traders typically pay only a slight margin (5% - 10%) of the entire contract price to become acquaintance to an additional noteworthy capital that they then would not have contact to.

In spite of being a fundamental instrument in modern finance, currency derivatives transmit characteristic risks of:

i. **High volatility-** Though derivatives contracts are intended to hedgerow market risks (and often profit on the hedge), derivatives are integrally highly instable. Their risk valuation may not be complete in spite of the hedging. Thus, they prerequisite extreme checking, which makes the contract very multifaceted.

ii. **Incorrect speculation-** Price discovery of a fundamental asset in the future needs multifaceted assumptions, and untrue assumptions may lead to substantial losses.

iii. **Leverage-** Currency derivatives, particularly futures, include a slight margin of the total contract worth. If currency drive is not ventured in the correct way, the margin may drip fast underneath lowest levels leading to instant margin fill-up.

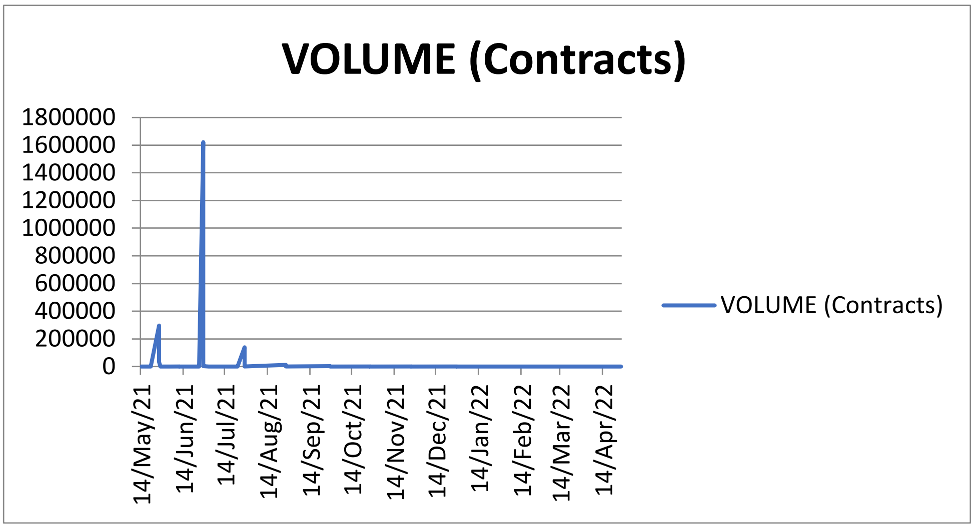
iv. **Counterparty risks-** There is a likely chance that in currency derivatives contracts, particularly in options, the buyer or seller may select not to exercise their rights, leading to losses to both party.

II. Trading Mechanism of Currency Derivatives in India regarding volume of contracts and number of trade and its performance

Table 2 showing Currency Derivative Values							
Expiry date	**LAST PRICE**	**CHNG**	**%CHNG**	**VOLUME (Contracts)**	**VALUE**	**OPEN INTEREST**	**NO. OF TRADES**
27-May-21	73.5375	-0.01	-0.01	1621425	1,19,32,55,22,687.50	2556979	79204
28-Jun-21	73.91	-	-	296059	21,89,94,45,060.00	960877	13382
27-May-21	104.02	0.31	0.3	286208	29,74,61,29,230.00	154641	29812
27-May-21	89.54	0.04	0.04	139046	12,43,41,46,350.00	106826	9940
28-Jul-21	74.25	0.03	0.05	36301	2,69,56,75,900.00	147987	2526
28-Jun-21	104.53	0.33	0.31	32972	3,44,38,51,662.50	77980	6250
27-May-21	67.7375	0.12	0.17	30740	2,07,85,45,452.50	18466	3373
28-Jun-21	90	0.05	0.05	11961	1,07,52,15,210.00	51208	1897
27-Aug-21	74.5225	-0.04	-0.05	7309	54,49,29,635.00	99643	614
28-Jul-21	104.92	0.32	0.31	7258	76,10,97,422.50	19481	1320
28-Jul-21	90.4	0.06	0.06	2303	20,80,03,437.50	11362	322
28-Sep-21	74.835	0.01	0.01	2273	17,01,26,257.50	45543	198
28-Jun-21	68.0525	0.06	0.1	1371	9,32,04,187.50	4374	275
26-Nov-21	75.445	0.01	0.01	992	7,48,99,572.50	64978	91
27-Oct-21	75.1175	0.01	0.01	885	6,65,01,435.00	38970	110
29-Dec-21	75.7275	-0.01	-0.01	830	6,29,08,127.50	83729	145
27-Aug-21	105.3375	0.44	0.42	622	6,54,81,212.50	2388	163
27-Aug-21	90.7375	0.05	0.06	447	4,05,23,475.00	1627	71
28-Jul-21	68.4	0.08	0.12	242	1,65,17,000.00	424	45
28-Sep-21	105.6	0.33	0.32	61	64,39,040.00	169	16
28-Sep-21	91.23	0.39	0.43	61	55,49,915.00	303	10
27-Aug-21	68.505	-0.19	-0.28	14	9,59,060.00	18	3
11-Jun-21	105	4.78	4.77	0	1,05,000.00	0	1
23-Jul-21	-	-	-	0	-	0	0
21-May-21	89.3	0.04	0.04	0	1,06,25,140.00	0	70
27-Apr-22	-	-	-	0	-	0	0
04-Jun-21	-	-	-	0	-	0	0
09-Jul-21	-	-	-	0	-	0	0
27-Jan-22	-	-	-	0	-	0	0
02-Jul-21	-	-	-	0	-	0	0
23-Jul-21	-	-	-	0	-	0	0
29-Mar-22	-	-	-	0	-	0	0
18-Jun-21	-	-	-	0	-	0	0
02-Jul-21	-	-	-	0	-	0	0
28-May-21	89.485	0.02	0.02	0	4,41,60,320.00	0	120
24-Feb-22	-	-	-	0	-	0	0
25-Jun-21	89.84	0.31	0.35	0	1,79,76,262.50	0	10
16-Jul-21	-	-	-	0	-	0	0
18-Jun-21	-	-	-	0	-	0	0
24-Feb-22	-	-	-	0	-	0	0

09-Jul-21	-	-	-	0	-	0	0
26-Nov-21	92.02	-	-	0	-	30	0
11-Jun-21	-	-	-	0	-	0	0
29-Dec-21	-	-	-	0	-	0	0
28-May-21	103.9525	0.26	0.25	0	31,85,85,247.50	0	499
27-Oct-21	91.75	-	-	0	-	178	0
16-Jul-21	-	-	-	0	-	0	0
27-Jan-22	76.04	0.03	0.04	0	10,53,63,400.00	0	143
27-Apr-22	77	0.04	0.06	0	8,23,93,257.50	0	95
29-Mar-22	76.665	0.02	0.02	0	16,35,50,315.00	0	134
27-Oct-21	-	-	-	0	-	0	0
24-Feb-22	76.34	-	-	0	5,96,43,820.00	0	100
27-Apr-22	-	-	-	0	-	0	0
29-Mar-22	-	-	-	0	-	0	0
27-Jan-22	-	-	-	0	-	0	0
29-Dec-21	-	-	-	0	-	0	0
04-Jun-21	103.06	-0.94	-0.9	0	2,07,060.00	0	2
14-May-21	103.805	0.27	0.26	0	40,09,61,812.50	0	465
23-Jul-21	-	-	-	0	-	0	0
26-Nov-21	-	-	-	0	-	0	0
21-May-21	67.35	-	-	0	-	0	0
02-Jul-21	-	-	-	0	-	0	0
28-Sep-21	-	-	-	0	-	0	0
27-Apr-22	-	-	-	0	-	0	0
25-Jun-21	67.8675	-1.12	-1.62	0	67,867.50	0	1
27-Oct-21	-	-	-	0	-	0	0
28-May-21	67.685	0.03	0.05	0	73,75,367.50	0	15
27-Jan-22	-	-	-	0	-	0	0
26-Nov-21	-	-	-	0	-	0	0
09-Jul-21	-	-	-	0	-	0	0
04-Jun-21	-	-	-	0	-	0	0
21-May-21	104.0175	0.39	0.38	0	2,58,52,210.00	0	108
29-Dec-21	-	-	-	0	-	0	0
25-Jun-21	104.4325	0.31	0.3	0	2,81,90,940.00	0	37
11-Jun-21	-	-	-	0	-	0	0
18-Jun-21	-	-	-	0	-	0	0
29-Mar-22	-	-	-	0	-	0	0
14-May-21	67.4975	0.02	0.02	0	89,70,582.50	0	36
24-Feb-22	-	-	-	0	-	0	0
16-Jul-21	-	-	-	0	-	0	0
14-May-21	89.3325	0.03	0.04	0	6,98,81,877.50	0	99
Source: Extracted from National Stock Exchange, India, March 2022							

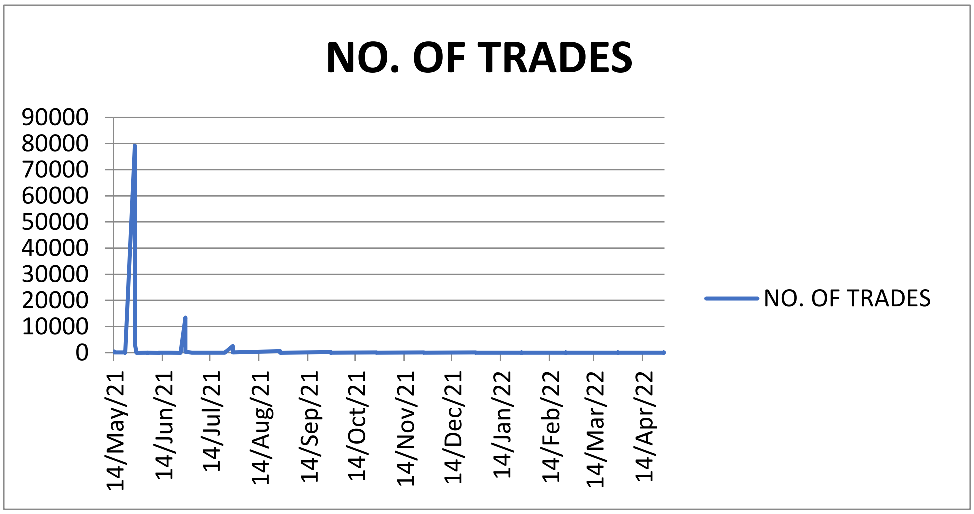
Figure – 1: Represents the Volume of Contracts of Currency Derivative



Source: Extracted from National Stock Exchange, India, March 2022

Interpretation: The above Figure 1 represents the volume of contracts of currency derivatives. It shows expiry date on horizontal axis and volume of contracts in vertical axis. There is an increase in volume of contract between the month of June and July, its indicates that the currency value will be high due the more volume of contracts operated in future derivative market. The future of currency derivatives in uncertain because of current pandemic period.

Figure – 2: Represents the Number of Trades in Currency Derivative Market



Source: Extracted from National Stock Exchange, India, March 2022

Interpretation: The above Figure 2 represents the number of trades involved in the currency derivative market. It shows expiry date on horizontal axis and number of trades in vertical axis. In the month between May to June there is high volume of trading activities because it is expected high volume of contracts in the month between June and July which increase the currency value in future through high trading activities in the currency derivative market.

6. Findings from the Study

The major findings from this study reinstate that there is an increase in volume of contract between the months of June 2021 and July 2021, as it indicates that the currency value was high due the more volume of contracts operated in future derivative market. In the months between May 2021 to June 2021 there was high volume of trading activities because of high volume of contracts in the months between June 2021 and July 2021 which increase the currency value in future through high trading activities in the currency derivative market. The future of currency derivative market remains to be unstable because there will be less trading activities in the market due to pandemic situation in the countries, so the currency value may increase or decrease based on the number of trading activities involves in future derivative market.

Suggestions

The derivatives market has rationalized finance by opening up the capital market to variously sized trades. As an underlying asset, a country's currency has inordinate impending to tie a small margin to a much bigger investment. It is, however, not without the hazards of complete let-downs – like the protracted collapse of the pound post-Brexit. The future of currency derivatives in India is uncertain because of current pandemic period. The significant aspect is that though currency derivatives are not prevalent among retail investors, they deliver outstanding wealth creation chances and deserve to be a part of a retail investor's portfolio. Currency derivatives in the Indian market are still mainly controlled by central banks and importers-exporters. Nevertheless, risk-takers and arbitrageurs are also snowballing their contribution in the currency market. As more retail investors begin to discover the extent of profit gains in the forex market, the popularity and demand for currency derivatives in India witnessed a substantial growth. Therefore, it is suggested that importer - exporter should embrace hedging approaches of exchange rate futures and options.

7. Concluding Observation

Currency trading is one of the best profitable investment options for retail investors. It offers an impervious and locked market in which best banks and financial institutions trade. The foreign exchange-based currency derivatives sector is delimited and translucent. A market that small businesses and even individuals can practice to hedgerow their currency exchange risk. On top of it, liquidness in near-month contracts is now adequate to engross big orders without altering bid-ask spreads. That generates an allure choice to trade financial instruments, and with appropriate information and capability to understand through the price actions, one can create a countless deal of money in currency derivatives in the elongated term. There is no definite pattern to attain triumph in forex trading, but one's capability to comprehend countless monetary policy tools can offer some control to implement one's transaction strategies in the short term.

On the other hand, there are many tasks for undergoing forex transaction in India, as India's currency derivatives market window is exposed only from 9 am to 5 pm, which barely captures the liquidness opening for mid-London and early New York sessions. Plus, India have merely four rupee pairs to trade in contradiction of many straight USD and non-USD pairs operated universal. Finally, the foremost task of getting into currency derivatives is the volume it draws on a daily basis. The large portion of it goes to forex hedging and into merchandise trade in forward and spot markets. The volume-based income in the spot market can alter the day-to-day and weekly movements of the currency futures, particularly in the USD-INR pair, which is the greatest tradable currency pair in India. In spite of these tests, volumes in the currency segment of Indian exchanges have mounted significantly since commencement. Furthermore, the USD-INR pair contracts offer remarkable prospects to customise one's currency trades.

Future Research

This paper focuses on the trading mechanism of currency derivatives in India regarding volume of contracts and number of trade and its performance and also its merits and demerits. Therefore, the transaction cost is ignored in this study and the firm is presumed to have adequate futures margin. In the future study, the day-to-day examining risk of currency futures hedging and the transaction cost of currency futures and options can be considered.

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