A STUDY ON RECENT TRENDS IN DERIVATIVE MARKETS IN INDIA

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Abstract

Indian derivatives market has been one of the fastest growing derivative market from around the globe. Since its inception in June 2000, derivatives market has exhibited exponential growth both in terms of volume and number of contracts traded. The equity derivatives market turnover has grown from Rs.2365 Cr. in 2000-2001 to Rs. 257175099.5 Cr. in 2019-20. The original intent for the creation of derivatives was to balance the exchange rate for internationally traded goods. However, in the modern times it has wider uses like hedging, speculation, arbitrage etc. So, it is important for an investor to stay updated about these financial instruments if they are to stay in the game. In this paper, the objective is to take note of the recent and major trends in the Indian derivatives market. Knowing how the market ticks will make an investor ever the wiser. This paper is also intended to take note of the opportunities and challenges in the Indian derivatives market.

Keywords – *Indian Derivative Market, Recent Derivative Trends, SEBI, RBI, Derivative regulations*

1. Introduction

A derivative is a financial security with a value that is reliant upon or derived from, an underlying asset or group of assets. The derivative itself is a contract between two or more parties, and the derivative derives its price from fluctuations in the underlying asset. The most common underlying assets for derivatives are stocks, bonds, commodities, currencies, interest rates, and market indexes. Derivatives can be traded in stock exchange markets or over-the-counter (OTC) markets. The most commonly traded derivatives are futures, forwards, options and swaps. Derivatives were originally meant to balance the exchange rate for internationally traded goods. But as of today it is used for wider purposes like hedging, speculation, arbitrage and so on. The derivative market in India has been growing steadily since its 'introduction' in June 2000.

Derivatives	Year	No. of Contracts	Turnover (Rs cr.)
Interest Rate Derivatives	2019-2020	1,35,01,676	2,76,969.89
	2009-2010	1,60,894	2,974.59
Currency Derivatives	2019-2020	98,14,85,976	70,98,781.05
	2008-2009	3,26,72,768	1,62,272.43
Equity Derivatives	2019-2020	3824295214	257175099.5
	2000-2001	90580	2365

Source - nseindia.com

So, for an investor it is imperative to know about the recent trends in this huge growing market. They need to know the major policy changes as well as the vibe of the market. This study is aimed towards exploring and pinpointing the major changes and recent trends in the derivative market

2. Objectives

The major objectives of this paper are

- ❖ To provide an overview on Indian derivative market
- ❖ To lay down the recent trends in the Indian derivative market
- ❖ To identify opportunities and challenges in the derivatives market

3. Methodology of Study

The study is purely based on secondary sources. Various journals, websites and books have been consulted to prepare this study. Data which was relevant to the study was taken from these sources and combined in a logical sequence to furnish this paper

4. Derivatives

D.G. Gardener defined the derivatives as "A derivative is a financial product which has been derived from the market for another product." As defined above, its value is entirely derived from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, livestock or anything else. In other way the underlying asset may assume many forms:

(i) Commodities including grain, coffee beans, orange juice.
(ii) Precious metals like gold & silver.
(iii) Foreign exchange rates or currencies.
(iv) Bonds of different types, including medium to long term negotiable debt, securities issued by governments, companies etc.
(v) Shares and share warrants of companies traded on recognized stock exchanges and stock index.
(vi) Short term securities such as T-bills.
(vii) Over the counter (OTC) money market products such as loans or deposits.

Derivatives can be classified into different types based on number of features such as markets they are traded, underlying asset etc.

On the basis of Linear & Non-Linear	On the basis of financial and non-financial	On the basis of market where they are traded

<u>Linear derivatives</u> The values of those derivatives depend linearly on the underlying‟s value are called linear derivatives. They are following: ● Forwards ● Futures ● Swaps	<u>Financial derivatives</u> Those derivatives which are of financial nature are called financial derivatives. They are following: ● Forwards ● Futures ● Options ● Swaps The above financial derivatives may be credit derivatives, forex, currency fixed-income, interest, insider trading and exchange traded.	<u>OTC traded derivatives</u> Derivative contracts are traded (and privately negotiated) directly between two parties, without going through an exchange or other intermediary.. They are following: ● Swaps ● Forward rate agreements ● Exotic options ● Other exotic derivative
<u>Non-linear derivatives</u> Those derivatives whose value is a non-linear function of the underlying are called non-linear derivatives. They are following: ● Options ● Convertibles ● Equity linked bonds ● Reinsurance	<u>Non-financial derivatives</u> Those derivatives which are not of financial nature are called non-financial derivatives. They are following: ● Commodities ● Metals ● Weather ● Others	<u>Exchange traded derivative</u> Those derivative instruments that are traded via specialized derivatives exchange. They may be followings ● Futures ● Options ● Interest rate ● Index product ● Convertible ● Warrants
		<u>Common derivatives</u> These derivatives are common in nature/trading and classification. They are following: ● Forwards ● Futures ● OptionsBinary ● Options ● Warrant ● Swap

5. History of Derivative Markets in India

Derivatives have a long history in India. Even though the modern form of derivative trading have been around for only two decades, Indian markets have witnessed derivatives from the late 19th century onwards. But the journey was not smooth all the way. Here is an account of what happened in Indian derivative market over the years.

1875	Bombay Cotton Trade Association started futures trading
early 1900s	India becomes one of the largest futures market

1952	Indian government banned cash settlement and options trading and derivatives trading shifted to informal forwards markets
1956	Enactment of the Securities Contracts (Regulation) Act which prohibited all Options in securities
1969	Issue of Notification which prohibited forward trading in securities
1995	Promulgation of the Securities Laws (Amendment) Ordinance which withdrew prohibition on options
1996	SEBI setting up of L. C. Gupta Committee to develop regulatory framework for Derivatives trading in India
1998	L. C. Gupta Committee turns in their report & Constitution of J, R. Varma Group to develop measures for risk containment for derivatives
1999	Enactment of the Securities Laws (Amendment) Act which defined Derivatives as securities. RBI grants permission for OTC Forward Rate Agreements & interest rate swaps
2000	Withdrawal of 1969 Notification
May 2000	SEBI granted approval to NSE and BSE to commence trading of derivatives
June 2000	Trading in index futures commenced
April 2001	Clearing Corporation of India limited (CCIL) was set up
June 2001	Trading in Equity index options commenced (NSE)
July 2001	Trading in stock options commenced (NSE)
November 2001	Trading in stock futures commenced
June 2003	Trading of Interest rate futures commenced (NSE)
2008	Trading of Currency Futures commenced
September 2015	Subsequent to the passing of the Finance Act 2015, Forward Markets Commission (FMC) was merged with SEBI

6. Organisation of Derivative Markets in India

6.1 Exchange traded derivatives

In India, derivatives instruments are available for stocks, currency, bonds, and commodities. The National Stock Exchange, the Bombay Stock Exchange, the Multi Commodity Exchange are the main exchanges which facilitate derivatives trading. NSE and BSE deals with stock derivatives. The product family of the derivatives market in stocks segment includes stocks future and options. Similarly, there are derivatives products for indices and includes index future and options. Also, derivatives product for bonds is part of National Stocks Exchange exchange. The NSE has a dedicated platform for bonds derivatives products in India. One can trade Interest Rate Futures on this platform. The NSE offers two instruments on Interest Rate Future segment. Futures on 6 years, 10 years and 13 year Government of India Security *(NBF II)* and 91-day Government of India Treasury Bill (91DTB).

MCX purely deals with commodities. It includes categories like bullion (gold,silver), base metals (aluminium, brass, copper), energy products (crude oil, natural gas) and agricultural products (black pepper, cotton, rubber). Commodities derivatives products comprise commodities future. However, you can trade in various currency derivatives on any of the three exchanges. While currency derivatives instruments in India includes currency future and options in 4 major currency pairs. These pairs are USD-INR, GBP-INR, JPY-INR, and EUR-INR.

Exchange traded equity and commodity derivatives markets are regulated by Securities and Exchange Board of India (SEBI). Prior to the merging of FMC with SEBI, the Forward Markets Commission (FMC) regulated the exchange traded commodity derivatives market in India. Reserve Bank of India (RBI) as well as SEBI jointly regulates the exchange traded foreign currency and interest rate futures.

6.2 Over-the-counter (OTC) derivatives

Over-the-counter (OTC) derivatives provide much more flexibility than exchange traded derivatives. Derivatives instruments permitted in OTC financial derivatives market (comprising in India are interest rate derivatives (forward rate agreements, interest rate swaps), forex derivatives (forex forwards, forex swaps, forex options, currency swaps, interest rate options in FCY, Interest rate swaps in FCY, Interest rate swaps option in FCY) and credit derivatives (Credit default swaps). The OTC derivatives market in the country has grown significantly over the years. According to BIS Triennial OTC Derivatives Statistics, the turnover of OTC foreign exchange instruments grew from negligible in 1995 to 40 billion USD in 2019. Also the turnover of OTC interest rate derivatives in India rose from negligible in 1995 to 5 billion USD in 2019.

The regulatory structure of the OTC derivatives market at present in India is as follows: The Reserve Bank of India Act, 1936 (as amended on 2006) empowers RBI to regulate OTC products such as interest rate derivatives, foreign currency derivatives and credit derivatives. Thus, all exchange-traded derivatives are regulated by the respective exchanges and overseen by SEBI whereas the OTC traded derivatives are completely within the purview of the RBI.

OTC derivatives market comprises of clients, authorised dealers (ADs), Central Clearing Party/Trade Repository (CCIL) and the RBI, as regulatory authority. Authorised dealers report trade transactions to the RBI for market surveillance. While, CCIL reports all transactions to the RBI for systematic risk assessment. Authorised dealers also report trade transactions to Trade Repository (CCIL). All trade transactions between authorised dealers are centrally cleared by CCIL. In India, the small size of the OTC derivatives market, low level of complexity in products and robust regulation resulted in orderly derivatives market development and reduced the concerns with regard to systemic risk.

7. Trends in derivative market India

7.1 FMC-SEBI merger

The commodity futures market in India was chiefly regulated by Forwards Market Commission (FMC). As of 2014, it regulated rs 17 trillion worth of commodity trades in India. On 28 September 2015, the FMC was merged with the Securities and Exchange Board of India (SEBI) to make the regulation of commodity futures market strong. India decided to swim against the tide and merged two regulatory bodies instead of the traditional practise of creating a new one. This is the first major case of two regulators being merged. The commodities market has been known to be more prone to speculative activities compared to the better-regulated stock market, while illegal activities like 'dabba trading' have also been more frequent in this segment. The merger was supposed to tighten the noose around such activities and impose stringent control measures to increase the efficiency of the commodity market. Regulators in India's capital markets have been the direct outcome of scams, which were the result of loopholes and the lack of an authority to enforce rules. This merger too, came in the backdrop of a scam at commodities exchange NSEL, but the key difference is that it was already in the works. It is in line with the recommendation of the Financial Sector Legislative Reforms Commission (FSLRC), of creating one regulator encompassing the securities, commodities, insurance, and pension markets. It has restored confidence among market participants about regulatory oversight on commodities that is as strong as in equities.

7.2 Mutual Fund participation in Commodity Derivatives

To include institutional investors into exchange traded commodity market SEBI has allowed the participation of Mutual Funds in commodity derivatives like gold, crude, copper, silver etc. Sensitive commodities like agri products which are those subject to frequent government intervention and the Essential Commodities Act are however, excluded. Effective 2019 May 21, MFs can participate in gold derivatives only through Gold exchange traded funds launched by asset management companies (AMCs) and in other commodity derivatives through hybrid schemes, which currently invest in equity, debt and gold, SEBI said in a circular on the same date. "SEBI's decision to amend SEBI (Custodian of Securities) Regulations, 1996 will allow small players to hedge their commodity risk through mutual funds. Until now, traders were allowed only through direct membership," said Kishore Narne, Associate Director (commodities and currencies), Motilal Oswal Financial Services Ltd.

7.3 Reduction in penalty for abnormal trades

On December 13, 2018 both BSE and NSE issued a circular on abnormal or non-genuine transactions. They asked the trading members to refrain from practices leading to tax evasion and such. While stating that the decision of whether a trade is abnormal or non-genuine would rest with the exchange, the circular said that exchanges would levy on brokers 100% penalty of the traded value for 'abnormal trades' executed on behalf of their clients. This sparked widespread protests among trade bodies. What has miffed brokers, though, is that exchanges have not defined what is 'abnormal trading.'

The National Stock Exchange on 2020 January 7, decided to slash the quantum of fine imposed on stock brokers for "abnormal trades" executed on behalf of their clients. They reduced the fine to 15%. "The exchange shall levy a penalty of 15% of the profit earned or loss incurred on the trading members for both profit and loss making abnormal or non-genuine transactions after following the due process and providing necessary opportunity to the trading member for clarification in the matter," NSE said in a circular. In addition, the exchange has also asked trading members to put in place requisite systems to monitor such abnormal or non-genuine transactions. The decision whether a trade is abnormal or non-genuine still rests with the exchange.

7.4 Physical settlement of Stock derivatives

Prior to January 2019, in the futures and options market the settlement was either on a cash basis or physical. Lion share of the settlements were cash basis. On the New Year's Day of 2019, SEBI issued a framework for making physical settlement of stock derivatives mandatory. This was done in a phased manner. Stocks which were being cash settled were ranked in descending order based on daily market capitalization averaged for the month of December 2018. In each quarter of 2019, the bottom 50 stocks were moved to physical settlement. In 2019 January SEBI flagged this off by moving 42 stocks. This move did not meet with major problems & so the process continued. By October 2019, SEBI achieved the target of complete physical settlement of stock derivatives. This was carried out to curb excessive speculation and volatility in share prices.

7.5 Increased trading hours for commodity derivatives market.

In December 2018, SEBI increased the trading time in the commodity derivatives market by an hour. The move was in line with the recommendation of Commodity Derivatives Advisory Committee. The objective of the change is to deepen the commodity derivatives market as well as to enhance the participation of stakeholders, including farmer produce organisation and foreign entities. For non-agricultural commodities, the revised timings will be from 9 am to 11.55 pm, while for agricultural and agri-processed commodities, the trading hours will be from 9 am to 9 pm. Earlier, the SEBI had fixed the trading hours for non-agriculture commodities from 10 am to 11.55 pm and for agricultural commodities, it was 10 am to 09:30 pm.

7.6 Launching of MCXCCL

The Multi Commodity Exchange of India Ltd (MCX) on 2018 August received the recognition from market regulator SEBI to launch operations of its wholly-owned subsidiary, Multi Commodity Exchange Clearing Corporation Ltd (MCXCCL). It is the first clearing corporation in the commodity derivatives market. The clearing corporation provides collateral management and risk management services, along with clearing and settlement of trades executed on the Exchange. The European Securities and Markets Authority (ESMA) has granted recognition to MCXCCL as a third country CCP under European market infrastructure regulation. MCXCCL having state of art risk management system is the central counterparty for all trades executed on MCX's trading platform. It also provides Electronic Commodity Accounting and Receipts Tracking System through web based portal 'Commodity Receipts Information Systems' (COMRIS). Further, it provides a settlement guarantee for all trades executed on MCX via Settlement Guarantee Fund (SGF).

7.7 Reducing dependence on LME

In 2013, Multi Commodity Exchange of India (MCX) signed a licensing agreement with the London Metal Exchange (LME), according to which MCX would use the current prevailing prices on the LME for settling future contracts. The exchange was paying high fees to LME & Chicago Mercantile Exchange for price discovery. This was because even those domestic companies that needed hedging stayed away due to non-availability of local prices. Here speculators were very much dominant.

However the London Metal Exchange (LME) could soon be de-linked from India's commodity markets. Calendar 2019 got a very good start in which MCX has taken a step to modify optional delivery of zinc and aluminium to compulsory delivery mechanism. Now, both aluminium and zinc contracts have become 'compulsorily deliverable instead of 'both options' (cash and delivery). Domestic price discovery is possible if delivery of goods is involved as it could promote local price pooling. This will in turn reduce the dependence on LME for price discovery up to a point where LME can be completely de-linked from India's commodity markets.

7.8 India becomes largest derivative market by volume

India's National Stock Exchange has surpassed America's CME Group Inc. to become the world's largest derivatives bourse by volume. Mumbai-based NSE traded the most contracts in the world in 2019, the exchange said in a statement, citing data from the Futures Industry Association. Volume on the Indian exchange grew 58% to about 6 billion derivative contracts in 2019, surpassing CME's 4.83 billion, according to FIA's website.

EXCHANGE	2019 VOLUMES (BILLION CONTRACTS)
NSE	5.96
CME Group	4.83
B3	3.88
Intercontinental Exchange	2.26
Eurex	1.95

7.9 AI & Derivatives

Artificial Intelligence (AI) seems to have a finger in every pie these days. Financial markets are still dominated by humans. But it is soon set to change. Already some of the big firms like Manulife (a Canadian financial service group), JP Morgan, Bank of America etc utilizes AI in different manner. Even for complex derivatives, artificial intelligence can certainly provide some great value, in terms of pricing, valuations, extracting information, etc. For example, there is a start-up called Droit Financial Technologies, which is based in the U.S., that leverages artificial intelligence for derivatives trading and does some advanced risk checks to ensure that transactions are compliant with overall conduct and also does some reporting activity.

NSE is betting big on AI. The idea, according to Vikram Limaye, managing director and chief executive officer (CEO) of NSE, is to enhance the efficacy of the capital markets, improve surveillance operations to prevent manipulation of its systems, and enable more efficient reporting to regulators. In coming years AI can be big game changer in the overall financial market.

8. Conclusion

"We've used derivatives for many, many years. I don't think derivatives are evil, per se, I think they are dangerous." says Warren Buffett. It is true that derivatives are vehicles capable of transferring risk from those who are risk averse to those who are able and willing to do so. And the growth of the derivatives market is one of the significant events in the past decade history of finance. However without proper regulation and control derivatives could become a ticking time bomb that would destroy the economy. The pathway of salvation from risk can become doom too. In a developing nation like India strict control and stringent measures are what keeps the economy moving and the derivatives growing. In the coming years if India is to become the global financial leader, development of derivatives market is also essential.

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