



AN ANALYTICAL STUDY ON INDIAN DERIVATIVES MARKET

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ABSTRACT:

The emergence and growth of the market for derivative instruments can be traced back to the willingness of risk adverse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. Derivatives are meant to facilitate the hedging of price risks of inventory holdings or a financial/commercial transaction over a certain period. By locking in asset prices, derivative products minimize the impact of fluctuations in asset prices on the profitability and cash flow situation of risk-averse investors, and thereby, serve as instruments of risk management. By providing investors and issuers with a wider array of tools for managing risks and raising capital, derivatives improve the allocation of credit and the sharing of risk in the global economy, lowering the cost of capital formation and stimulating economic growth. Now that world markets for trade and finance have become more integrated, derivatives have strengthened these important linkages between global markets, increasing market liquidity and efficiency, and have facilitated the flow of trade and finance.

Keywords: Derivative markets, national stock market, Bombay stock market, financial derivative.

INTRODUCTION:

The derivative market in India, like its counterparts abroad, is increasingly gaining significance. Since the time derivatives were introduced in the year 2000, their popularity has grown manifold. This can be seen from the fact that the daily turnover in the derivatives segment on the National Stock Exchange currently stands at Rs. crore, much higher than the turnover clocked in the cash markets on the same exchange. The derivative market has become multi-trillion dollar markets over the years. Derivatives are financial commitments indexed or linked in some capacity to changes in the value of underlying assets. The bulk of the derivatives trading internationally are linked to currencies and interest rates, other derivatives are linked to equity or equity indices. A very small volume of derivatives, compared to the total, is indexed to traditional commodities. Small by comparison to other derivatives markets, these commodities-indexed derivatives markets are large compared to the underlying physical commodity markets.

LITERATURE REVIEW:



Shalini H S et al (2014) the past decade has witnessed the multiple growths in the volume of international trade and business due to the wave of globalization and liberalization all over the world. As a result, the demand for the international money and financial instruments increased significantly at the global level. In this respect, change in exchange rates, interest rates and stock prices of different financial markets have increased the financial risk to the corporate world. Adverse changes in the macroeconomic factors have even threatened the very survival of business world. It is therefore essential to develop a set of new financial instruments known as derivatives in the Indian financial markets, to manage such risk. The basic purpose of these instruments is to provide commitments to prices for future dates for giving protection against adverse movements in future prices, in order to reduce the extent of financial risks. Today, the financial derivatives have become increasingly popular and most commonly used in the world of finance.

Dr. Kamleshghakar: Msd.Meetu (2013) The Indian derivative market has become a multi-trillion dollar markets over the years. Marked with the ability to partially and fully transfer the risk by securing in, assets prices, derivatives are gaining popularity among the investors. Since the economic reforms of 1991 maximum efforts have been made to encourage the investors' confidence by making the trading process more users friendly. Still, there are specific issues in this market. So the present paper is to attempt to study the evolution of the Indian derivatives market. Trading instrument in its various products and the future prospects of the Indian derivatives markets

Naresh Gopal (2006) the dynamic growth of the derivatives market, particularly futures and options and the perceived risks to the financial sector, continue to stimulate debate on the proper regulation of these instruments. Even though this market was initially fueled by various expert team survey, regulatory framework, recommenders' bye laws and rules there still a debate on the existing regulations such as is regulation needed. When and where regulation need? What are responsible and attainable goals of these regulations? Therefore, this article critically examines the views of market participants on the existing regulatory issues in trading derivative securities in Indian capital market conditions.

OBJECTIVES:

1. To have an overview of the Indian Derivative Market
2. To evaluate products of derivatives i.e. Forwards, Futures, Swaps and Options
3. To assess performance of Indian Derivative Market.

Growth of Derivative Market in India



An assessment of IOSCO principles for Securities Regulations by the advisory panel on Financial Regulation and Supervision pointed the gaps with regard to assistance provided to foreign regulators, internal organizational and operational conduct, information on market intermediaries, prescription of risk related capital requirement and guidelines regarding internal control as part of good practices for market intermediaries.

NSE established the National Securities Clearing Corporations Ltd. (NSCCL) in August 1995 to build and sustain confidence in the clearing and settlement of securities. Two depositories called National Securities Depository Ltd. (NSDL) and Central Depository Services (India) Ltd. (CDSL) were established in 1996 and 1999 respectively to enable electronic record of ownership of securities and paperless trading.

As part of the risk management system in the liquid assets deposited by members with the exchange/clearing corporation, they cover or satisfy the following four requirements:

- a) MTM (mark-to-market) losses on outstanding settlement obligations of the member,
- b) VaR Margins (VaR margins to cover potential losses for 99 per cent of the days,
- c) Extreme Loss Margins (margins to cover the expected loss in situations that lie outside the coverage of the VaR margins)
- d) Base Minimum Capital (capital required for all risks other than market risk).

Types and Classification of Derivatives

There are many ways in which the derivatives can be categorized based on the markets where they trade, based on the underlying asset and based on the product feature etc. some ways of classification are following:

On the basis of financial and non-financial: On the basis of this classification the derivatives can be classified into two category namely financial derivatives and non-financial derivatives. Those derivatives which are of financial nature are called financial derivatives. They are following:

Forwards, Futures, Options, Swaps

Forward Contract A forward contract is a customized contract between the buyer and the seller where settlement takes place on a specific date in future at a price agreed today. In case of a forward contract the price which is paid/ received by the parties is decided at the time of entering into contract. It is simplest form of derivative contract mostly entered by individual in day to day life. The holder of a long (short) forward contract has an agreement to buy (sell) an asset at a



certain time in the future for a certain price, which is agreed upon today. The buyer (or seller) in a forward contract:

Acquires a legal obligation to buy (or sell) an asset (known as the underlying asset)

At some specific future date (the expiration date)

At a price (the forward price) which is fixed today

Forward contracts are bilateral contracts, and hence, they are exposed to the counter party risk. There is risk of non-performance of obligation either of the parties, so these are riskier than to futures contracts. In the forward market, the contract has to be settled by delivery of the asset on expiration date. In case the party wishes to reverse the contract, it has to compulsory go to the same counter party, which may dominate and command the price it wants as being in a monopoly situation. In a forward contract, covered party or cost of carry relations are relation between the prices of forward and underlying assets. Forward contract are very popular in foreign exchange market as well as interest rate bearing instruments. Most of the large and international banks quote the forward rate through their „forward desk“ lying within their foreign exchange trading room. Forward foreign exchange quotes by these banks are displayed with the spot rates.

Futures Contracts: Futures contract is an agreement between two parties to buy or sell a specified quantity of an asset at a specified price and at a specified time and place. Future contracts are normally traded on an exchange which sets the certain standardized norms for trading in futures contracts.

Options Contracts Options are derivative contract that give the right, but not the obligation to either buy or sell a specific underlying security for a specified price on or before a specific date. In theory, option can be written on almost any type of underlying security. Equity (stock) is the most common, but there are also several types of non-equity options, based on securities such as bonds, foreign currency, indices or commodities such as gold or oil. The person who buys an option is normally called the buyer or holder. Conversely, the seller is known as the seller or writer. Again we can say “An option is a particular type of a contract between two parties where one person gives the other person the right to buy or sell a specific asset at a specified price within a specified time period.” Today, options are traded on a variety of instruments like commodities, financial assets as diverse as foreign exchange, bank times deposits, treasury securities, stock, stock indexes, petroleum products, food grains, metals etc.

Swaps Contract A swap is an agreement between two or more people or parties to exchange sets of cash flows over a period in future. Swaps are agreements between two parties to exchange



assets at predetermined intervals. Swaps are generally customized transactions. The swaps are innovative financing which reduces borrowing costs, and to increase control over interest rate risk and FOREX exposure. The swap includes both spot and forward transactions in a single agreement. Swaps are at the centre of the global financial revolution. Swaps are useful in avoiding the problems of unfavorable fluctuation in FOREX market. The parties that agree to the swap are known as counter parties. The two commonly used swaps are interest rate swaps and currency swaps.

SIGNIFICANCE OF DERIVATIVE MARKET

The derivatives market performs a number of economic functions; they are

Price Discovery: 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 contracts. Thus derivatives help in discovery of future as well as current prices.

Risk Transfer: Due to the inherent link of derivatives market with the underlying cash market, witnesses higher trading volumes because of participations by more players who would not have otherwise participated for lack of an arrangement to transfer risk.

Controlled Speculative Trading: Speculative trades shift to a more controlled environment due to the existence of derivatives market. In the absence of an organized derivatives market, speculators trade in the underlying cash markets and margining, monitoring and surveillance of the activities of various participants become extremely difficult in derivative markets.

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

Enhancing Volume of Activity: Derivatives market help to increase savings and investment in the long run and transfer of risk enables the market participants to expand their volume of activity

DERIVATIVES MARKET IN INDIA

In India, there are two major markets namely National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) along with other Exchanges of India are the market for derivatives. Here we may discuss the performance of derivatives products in Indian market.



DERIVATIVE PRODUCTS TRADED AT BSE

The BSE started derivatives trading on June 9, 2000 when it launched “Equity derivatives (Index futures-SENSEX) first time. It was followed by launching various products which are shown in table no.2. They are index options, stock options, single stock futures, weekly options, stocks for: Satyam, SBI, Reliance Industries, Tata Steel, Chhota (Mini) SENSEX, Currency futures, US dollar-rupee future and BRICSMART indices derivatives. The table No.2 summarily specifies the derivative products and their date of introduction at BSE.

Sl. No.	Date of commencement	Derivatives products
1	9 th June 2000	Equity derivatives (Index futures - SENSEX)
2	1st June 2001	Index Options - S&P CNX Nifty
3	9th July 2001	Stock options launched (Stock option on 109 stocks)
4	9th Nov. 2002	Stock futures launched (Stock futures on 109 Stocks)
5	13th Sep. 2004	Weekly options on 4 Stocks
6	1st Jan. 2008	Chhota (mini) SENSEX
7	NA	Futures options on sectoral indices (namely BSE TECK, BSE FMCG, BSE metal, BSE Bankex & BSE oil & gas)
8	1st Oct. 2008	Currency derivative introduced (currency futures on US Dollar)
9	30th March 2012	Launched BRICSMART indices derivatives

Table 1: Derivative Trades in the Bombay Stock Exchange of India

Year/ Month	Index Futures	Index Options	Stock Futures	Stock Options
2005-06	6572	0	5171	332
2006-07	13600	2297	213	0
2007-08	8	5	3	0
2008-09	55490	0	3515	0
2009-2010	216447	28	5375	0
2010-2011	12249	9	30	0

Figure 1: The overall growth of derivative trading in Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) would be gauged from the following table and graph:

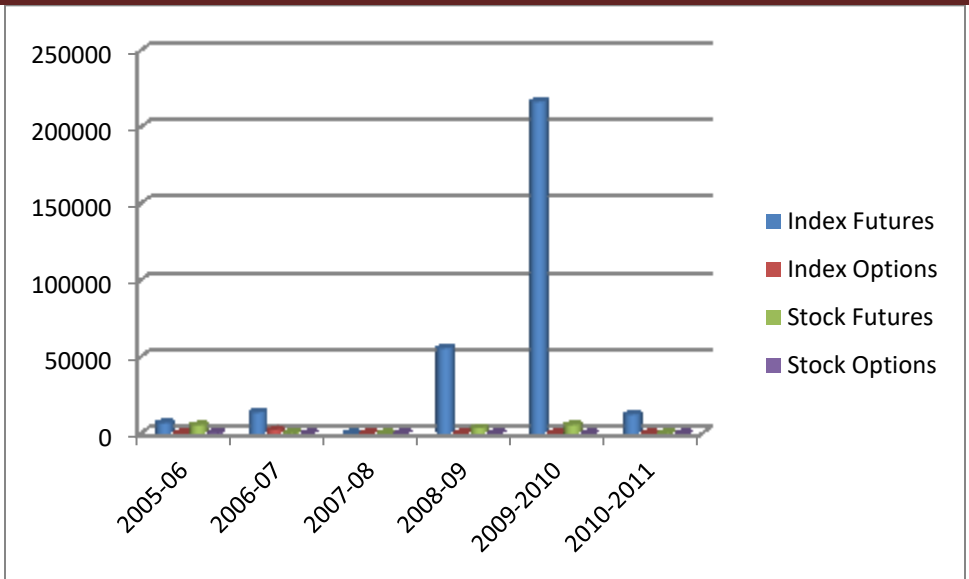


Table 2: Business growth at BSE in all segments

Year	Total Contracts	Total Turnover (Rs Cr)	Average Daily Turnover (Rs Cr)	Trading Days
2013-14	7503405	19421854.8	308283.4	247
2012-13	150068157	3884370.96	30828.34	241
2011-12	32222825	808475.99	3246.89	249
2010-11	5623	154.33	0.61	255
2009-10	9028	234.06	1.04	224
2008-09	496502	11774.83	48.46	243
2007-08	7453371	242308.41	965.37	251
2006-07	1781220	59006.62	259.94	227
2005-06	203	8.78	0.14	61
2004-05	531719	16112.32	77.09	209
2003-04	143224	5021.81	81.00	62

DERIVATIVE PRODUCTS TRADED AT NSE

The NSE started derivatives trading on June 12, 2000 when it launched “Index Futures S & P CNX Nifty” first time. It was followed by launching various derivative products which are shown in table. They are index options, stock options, stock future, interest rate, future CNX IT future and options, Bank Nifty futures and options, CNX Nifty Junior futures and options, CNX100 futures and options, Nifty Mid Cap-50 future and options, Mini index futures and options, Long term options. Currency futures on USD-rupee, Defty future and options, interest rate futures, SKP CNX Nifty futures on CME, European style stock options, currency options on USD INR, 91 days GOI T.B. futures, and derivative global indices and infrastructures indices.



The table no.3 presents a description of the types of derivative product traded at NSE and their data of introduction at NSE.

Sl. No.	Introduction date	Derivative Products
1	12th June 2000	Index futures – S&P CNX Nifty
2	4th June 2001	Index Options – S&P CNX Nifty
3	2nd July 2001	Stock options – on 233 stocks
4	9th Nov. 2001	Stock futures on 233 stocks
5	23rd June 2003	Interest rate futures – T. Bills & 10 years Bond
6	29th Aug. 2003	CNX IT futures & options
7	13th June 2005	Bank Nifty futures & options
8	1st June 2007	CNX Nifty Junior Futures & Options
9	1st June 2007	CNX 100 futures & options
10	5th Oct. 2007	Nifty midcap – 50 futures & options
11	1st Jan. 2008	Mini index futures & options – S&P CNX Nifty Index
12	3rd March 2008	Long term options contracts on – S&P CNX Nifty Index
13	29th Aug. 2008	Currency futures on US Dollar Rupee
14	10th Dec. 2008	S&P CNX Defty Futures & options
15	Aug. 2009	Launch of Interest rate futures
16	Feb. 2009	Launch of currency futures on additional currency pair
17	July 2010	S&P CNX Nifty futures on CME
18	Oct. 2010	Introduction of European style stock options

Table 3: Derivative Trades in the National Stock Exchange of India

Year	Index Futures	Index Options	Stock Futures	Stock Options	Interest Rate Futures
2005-06	554446	52816	1305939	217207	202
2006-07	772147	121943	1484056	168836	0
2007-08	1513755	338469	2791697	180253	0
2008-09	2539574	791906	3830967	193795	0



2009-2010	3820667	1362111	7548563	359137	0
2010-2011	3570111	3731502	3479642	229227	0

Figure 2: Derivative Trades in the National Stock Exchange of India

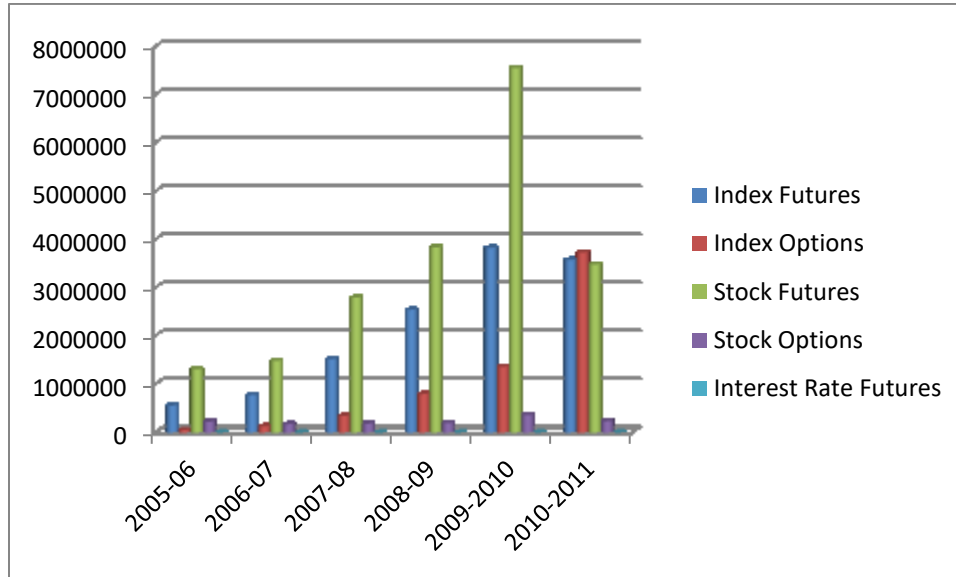


Table No. 4: Product wise Turnover of CD Segment at NSE

Year	Currency Futures Turnover (₹ cr.)	Currency Options Notional Turnover (₹ cr.)	Total Turnover (₹ cr.)	Average Daily Turnover (₹ cr.)
2013-2014	23,66,882.14	9,27,526.51	32,94,408.65	19,727.00
2012-2013	37,65,105.33	15,09,359.32	52,74,464.65	21,705.62
2011-2012	33,78,488.92	12,96,500.98	46,74,989.91	19,479.12
2010-2011	32,79,002.13	1,70,785.59	34,49,787.72	13,854.57
2009-2010	17,82,608.04	-	17,82,608.04	7,427.53
2008-2009	1,62,272.43	-	1,62,272.43	1,167.43

CONCLUSION:

Financial derivatives have earned a well-deserved and extremely significant place among all the financial instruments (products), due to innovation and revolutionized the landscape. Derivatives are tool for managing risk. Derivatives provide an opportunity to transfer risk from one to another. Finally we can say there is big significance and contribution of derivatives to financial system. The global financial crisis has proved to be a structural break in the financial derivative segment of NSE & BSE. As has been reflected by the analysis, the turnover structure of NSE & BSE of India, the exchange with dominating position in India, has shown that the derivatives trading has been a substantial & significant component of Indian stock market. Within this segment, the investors have been spotted with their obsession with Single Stock Futures



contracts in the pre global financial crisis period. This obsession has now been altered in the post-crisis period.

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