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# Performance of Equity Derivative Market in India: A Post Liberalization Analysis

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### ABSTRACT

The global liberalization and integration of financial markets has created new investment opportunities, which, in turn, require the development of new instruments that are more efficient to deal with the increased risks which is a characteristic feature of any investment. Derivatives products provide certain important economic benefits such as risk management or redistribution of risk away from risk-averse investors towards those more willing and able to bear risk. These functions of derivatives help in efficient capital allocation and price discovery in the economy. Since its inception in June 2000, derivatives market has exhibited exponential growth as the market turn-over has boosted from Rs. 40180 million in 2000-2001 to Rs. 474308323 Million in 2013-2014. Within a short span of fourteen years, derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts. The present study attempts mainly to focus on growth and performance of derivative market in India during post liberalization era. This paper also attempts to analyze sector wise classification of derivative market like stock, index, currency etc. Some space is also devoted for a brief discussion of basic concepts and fundamentals of derivatives. The paper concludes by pointing out trends of derivatives and factors affecting the growth of same. This work can serve as a source of guide for the study related to derivatives.

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### Introduction

Derivatives are defined as financial instruments whose value is derived from the prices of one or more other assets such as equity securities, fixed-income securities, foreign currencies, or commodities. Derivatives are also a kind of contract between two counterparties to exchange payments linked to the prices of underlying assets. Derivative can also be defined as a financial instrument that does not constitute ownership, but a promise to convey ownership. Examples are options and futures. The simplest example is a call option on a stock. In the case of a call option, the risk is that the person who writes the call (sells it and assumes the risk) may not be in business to live up to their promise when the time comes. In standardized options sold through the options clearing house, there are supposed to be sufficient safeguards for the small investor against this. The most common types of derivatives that ordinary investors are likely to come across are futures, options, warrants and convertible bonds. Beyond this, the derivatives range is only limited by the imagination of investment banks. It is likely that any person who has funds invested an insurance policy or a pension fund that they are investing in, and exposed to, derivatives-wittingly or unwittingly.

The primary objectives of any investor are to maximize returns and minimize risks. Derivatives are contracts that originated from the need to minimize risk. The word 'derivative' originates from mathematics and refers to a variable, which has been derived from another variable. Derivatives are so called because they have no value of their own. They derive their value from the value of some other asset, which is known as the underlying. For example, a derivative of the shares of Infosys (underlying), will derive its value from the share price (value) of Infosys. Similarly, a derivative contract on soybean depends on

the price of soybean. Derivatives are specialized contracts which signify an agreement or an option to buy or sell the underlying asset of the derivative up to a certain time in the future at a prearranged price, the exercise price. The contract also has a fixed expiry period mostly in the range of 3 to 12 months from the date of commencement of the contract. The value of the contract depends on the expiry period and also on the price of the underlying asset. For example, a farmer fears that the price of soybean (underlying), when his crop is ready for delivery will be lower than his cost of production. Let's say the cost of production is Rs 8,000 per ton. In order to overcome this uncertainty in the selling price of his crop, he enters into a contract (derivative) with a merchant, who agrees to buy the crop at a certain price (exercise price), when the crop is ready in three months time (expiry period). In this case, say the merchant agrees to buy the crop at Rs 9,000 per ton. Now, the value of this derivative contract will increase as the price of soybean decreases and vice-a-versa. If the selling price of soybean goes down to Rs 7,000 per ton, the derivative contract will be more valuable for the farmer, and if the price of soybean goes down to Rs 6,000, the contract becomes even more valuable. This is because the farmer can sell the soybean he has produced at Rs 9,000 per tonne even though the market price is much less. Thus, the value of the derivative is dependent on the value of the underlying. If the underlying asset of the derivative contract is coffee, wheat, pepper, cotton, gold, silver, and precious stone or for that matter even weather, then the derivative is known as a commodity derivative. If the underlying is a financial asset like debt instruments, currency, share price index, equity shares, etc, the derivative is known as a financial derivative. Derivative contracts can be standardized and traded on the stock exchange. Such derivatives are called exchange-traded derivatives. Or they

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can be customized as per the needs of the user by negotiating with the other party involved. Such derivatives are called over-the-counter (OTC) derivatives. Continuing with the example of the farmer above, if he thinks that the total production from his land will be around 150 quintals, he can either go to a food merchant and enter into a derivatives contract to sell 150 quintals of soybean in three months time at Rs 9,000 per ton. Or the farmer can go to a commodities exchange, like the National Commodity and Derivatives Exchange Limited, and buy a standard contract on soybean. The standard contract on soybean has a size of 100 quintals. So the farmer will be left with 50 quintals of soybean uncovered for price fluctuations. However, exchange traded derivatives have some advantages like low transaction costs and no risk of default by the other party, which may exceed the cost associated with leaving a part of the production uncovered.

Around 150 quintals, he can either go to a food merchant or enter into a derivatives contract to sell 150 quintals of soybean in three months time at Rs 9,000 per ton. Or the farmer can go to a commodities exchange, like the National Commodity and Derivatives Exchange Limited, and buy a standard contract on soybean. The standard contract on soybean has a size of 100 quintals. So the farmer will be left with 50 quintals of soybean uncovered for price fluctuations. However, exchange traded derivatives have some advantages like low transaction costs and no risk of default by the other party, which may exceed the cost associated with leaving a part of the production uncovered.

#### Objectives of the Study

- To know the participants of derivative market in India.
- To evaluate the different types of derivative product in India.
- To analyze the role and growth of derivative market in India.
- To examine the product wise classification of derivative market and its performance.
- To review the exchange wise performance of equity derivative.

#### Research Methodology

##### Data collection and analysis

Data required for the study is collected from secondary source. Derivative turnover and number of contracts in India are collected from RBI bulletin and Indian Securities Market Review. The Data related to product wise business growth of derivatives market are collected from SEBI Annual Report, Handbook of Statistics on the Indian Economy and Report on Currency and Finance. For analysis purpose Fourteen years i.e., from 2000 – 01 to 2013 -14, data are collected and used. Data can be analyzed with the help of Comparative and percentage analysis. The growth rate of equity derivative market is measured in terms of compounded annual growth rate.

##### Limitations of the Study

- Study is mainly based on secondary data
- Currency and commodity market are not taken in to the corpus of study

##### Types of Derivatives

There are mainly four types of derivatives i.e. Forwards, Futures, Options and swaps.

##### Forward

A forward contract is a customized contract between a buyer and seller in which buyer has the right and obligation to buy a specified asset on a specified date and at a specified price. The seller is also under an obligation to perform as per the terms of the contract. Forwards are contracts customizable in terms of contract size, expiry date and price, as per the needs of the user

##### Futures

As the name suggests, futures are derivative contracts that give the holder the opportunity to buy or sell the underlying at a pre-specified price sometime in the future. They come in standardized form with fixed expiry time, contract size and price. 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 the former are standardized exchange-traded contracts.

##### Option

Options are derivative contracts, which give the buyer either the right to buy or sell a specified quantity of the underlying asset at a fixed price agreed up on at the time of contract on or before the expiration date. Hence options are a right available to the buyer of the same, to purchase or sell an asset, without any obligation. It means that the buyer of the option can exercise his option but is not bound to do so. They are of two types: calls and puts.

##### Swaps

Swaps are private agreement between two parties to exchange cash flows in the future according to a prearranged formula.

##### Derivative Products in India

- Equity - Index futures & single stock futures and options
- Debt - Interest rate futures & forwards and swaps
- Forex - forward contracts and cross currency swaps
- Commodity – forward and futures

##### The major players of Derivatives Market

There are three major players in the financial derivatives trading:

**1. Hedgers:** Hedgers are traders who use derivatives to reduce the risk that they face from potential movements in a market variable and they want to avoid exposure to adverse movements in the price of an asset. Majority of the participants in derivatives market belongs to this category.

**2. Speculators:** Speculators are traders who buy/sell the assets only to sell/buy them back profitably at a later point in time. They want to assume risk. They use derivatives to bet on the future direction of the price of an asset and take a position in order to make a quick profit. They can increase both the potential gains and potential losses by usage of derivatives in a speculative venture.

**3. Arbitrageurs:** Arbitrageurs are traders who simultaneously buy and sell the same (or different, but related) assets in an effort to profit from unrealistic price differentials. They attempt to make profits by locking in a riskless trading by simultaneously entering into transaction in two or more markets. They try to earn riskless profit from discrepancies between futures and spot prices and among different futures prices.

##### Growth of Indian Derivatives Market

The NSE and BSE, two major Indian markets, have shown a remarkable growth both in terms of volumes and numbers of traded contracts. With the introduction of derivatives trading in 2000, Indian equity derivative market has registered an explosive growth and is expected to continue the same in the years to come. Derivatives trading gained popularity after its introduction in very short time and has been well received by stock market players. If we compare the business growth of NSE and BSE in terms of number of contracts traded and volumes in all product categories with the help of table number 17 to 20 which shows the NSE traded 1284424321 total contracts whose total turnover is Rs.382114079 million in the year 2013-

14 in futures and options segment. In case of BSE the total numbers of contracts traded are 301942441 whose total turnover is Rs.92194244 million in the year 2013-14 for all segments. In the above case we can say that the performance of BSE is not encouraging both in terms of volumes and numbers of contracts traded in all product categories. The table no.19 summarily specifies the updated figures since 2000-01 to 2013-14 about number of contracts traded and total volumes in all segments.

This section contains the statistical data or information about Indian derivatives markets namely: product wise contract traded and turnover of FO segment at NSE, total number of contract traded and its turnover at NSE in FO segment, product wise contract traded and turnover of FO segment at BSE, total number of contract traded and its turnover at BSE in FO segment.

After analyzing the study we can say that they are encouraging growth and developing. But industry analyst feels that the derivatives market has not yet, realized its full potential in terms of growth and trading. Analysts points out that the equity derivative market on the NSE and BSE has been limited to only four product Index-futures, index options and individual stock future and options, which in turn are limited to certain selected stock only. Although recently NSE and BSE have added some more products segment (Weekly Options, Currency futures, Mini Index etc.) In their derivative segment but still it is far less than the depth and variety of product prevailing across many developed capital markets.

Innovation of derivatives have redefined and revolutionized the landscape of financial industry across the world and derivatives have earned a well deserved and extremely significant place among all the financial products. Derivatives are risk management tool that help in effective management of risk by various stakeholders. Derivatives provide an opportunity to transfer risk, from the one who wish to avoid it; to one, who wish to accept it. India's experience with the launch of equity derivatives market has been extremely encouraging and successful. The derivatives turnover on the NSE has surpassed the equity market turnover. Significantly, its growth in the recent years has surpassed the growth of its counterpart globally. The turnover of derivatives on the NSE increased from Rs. 23,650 million in 2000-01 to Rs. 382114079 million in 2013-14. India is one of the most successful developing countries in terms of a vibrant market for exchange-traded derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous safe and secure electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery. Factors like increased volatility in financial asset prices; growing integration of national financial markets with international markets; development of more sophisticated risk management tools; wider choices of risk management strategies to economic agents and innovations in financial engineering, have been driving the growth of financial derivatives worldwide and have also fuelled the growth of derivatives here, in India.

In the exchange-traded market, the biggest success story has been derivatives on equity products. Index futures were introduced in June 2000, followed by index options in June 2001, and options and futures on individual securities in July 2001 and November 2001, respectively. As of 2005, the NSE trades futures and options on 118 individual stocks and 3 stock indices. All these derivative contracts are settled by cash payment and do not involve physical delivery of the underlying

product (which may be costly). Derivatives on stock indexes and individual stocks have grown rapidly since inception.

Equity derivatives trading started in India June 2000, after regulatory process which stretched over more than four years. In July 2001, the equity spot market moved to rolling settlement. Thus, in 2000 and 2001, the Indian equity market reached the logical conclusion of the reforms program which began in 1994. It is important to learn about the behavior of equity market as well as investors towards equity market in new regime. India's experience with launch of equity derivatives market has been extremely positive, by world standards. NSE is now one of the prominent exchanges amongst all emerging markets, in terms of equity derivatives turnover. There is an increasing sense that the derivatives market is playing a major role in shaping price discovery. The figure seems that the total turnover on the F&O segment increased by Rs.474268143 million during 2013-14 as compared with Rs 40180 million crore during 2000-01, which shows CAGR of 105.70 % in terms of turnover.

The index futures trading at NSE commenced on June 12, 2000 on S&P CNX Nifty Index. Table 1 to 4, shows the journey of the index futures since the year 2000. Over a period of time many indices have been made available for index futures trading. The index futures turnover at NSE has grown from Rs. 2, 3650 million to Rs. 30852964 million in 2013-14. This shows that index futures have witnessed a CAGR of 73. 64 % in last 14 years in terms of turnover and a CAGR of 72.10% in terms of number of contracts traded. Table 1 is indicating that the product has seen a continuous rise in its turnover year after years from excluding years from 2008-09 to 2012-13 due to global financial crisis and instability of world financial market because of euro zone debt crisis in 2011. And against it, the percentage share of index futures in terms of total turnover in the derivative segment has little bit down at 8% -14%. However, there were increased preferences for the usage of index futures during 2004-05 to 2006-07 when the index futures accounted for a share of around 30% - 34%. Index futures at NSE are currently available on the indices like S& P CNX Nifty, Nifty Midcap 50, CNX IT, CNX Bank and CNX Infra. Among the index futures products at NSE, the percentage share of Nifty futures is around 96%. This shows that Nifty futures have been the most prominent and popular product. To enable wider participation to retail investors in the derivatives markets, SEBI allowed introduction of smaller contract sized derivatives products in India. Consequently, the mini-Nifty futures contracts were introduced for trading in January, 2008.

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The trading in individual stock futures started on November 9, 2001. Table 5 shows the business growth of stock futures at NSE in terms of number of contracts traded and in terms of turnover since inception. Table shows the growth of stock futures at NSE has been from Rs 515155 million to Rs 49492817 million in 2013-14. This shows that stock futures witnessed a CAGR of 46.29% in last fourteen years in terms of turnover and a CAGR of 45.09% in terms of number of contracts traded. As of March 2011, there were 223 stocks available for trading at NSE. Till the year 2009-10, the share of stock futures 29.41% which was relatively a share of 50.54% in 2001-02. However, since then the share of stock futures has come down massively to 12.95% in 2013-14. This shows that there has been a drift of participants in the stock futures.

The trading in individual stock futures started on November 9, 2001. Table 6 shows the business growth of stock futures at BSE in terms of number of contracts traded and in terms of turnover. The data in Table 12 shows that from 2001-02 to 2003-04 there was a growth in stock futures trading in both the side in terms of number of contracts traded and trading volume. In 2001-02 the number of contracts traded was 17951 whereas in 2002-03 and 2003-04 it was 25842 and 128193 respectively and in terms of trading volume it was Rs. 4520 million in 2001-02, which were increased Rs. 6440 million in 2002-03 and Rs. 51710 million in 2003-04. And during those years the stock futures contributed more than 23% in 2001-02 and 2002-03 whereas it was increased up to 43% in total derivatives in BSE. But after that the trading in stock futures in BSE was came down up zero in both the cases number of contracts traded and trading volume up to year 2010-11 except 2006-07 and 2007-08. And again it was started to grow from 2011-12 but contribution by this product in total is too low than Index futures. In 2013 - 14 share of stock futures in the total derivative turnover of BSE is 0.59%. The product shows a CAGR of 47.49% in terms of number of contracts traded and CAGR 49.11% in terms of turnover from 2001-02 to 2013-14.

The index options were allowed for trading on S&P CNX Nifty Index on June 4, 2001. Table 9 shows the business growth of Index Options from 2001-02 to 2013-14 in overall equity derivatives market. The table reveals that the Index Options contributed only 4.19% in terms of numbers of contracts traded and 3.69% in terms of trading volume in total derivatives market in 2001-02. When there is tremendous growth in Index options during last decade which is indicated in year 2011-12 in which 72.29% shared in terms of number of contracts traded and 72.67% shared in terms of trading volume in total derivatives market. From the below figures in percentage change it is concluded that the Index options contract is more preferred product than other products. Worldwide, options have been the most preferred product in derivatives trading. However, in case of India, in the beginning the preferred product derivative trading was futures. The growth of index options at NSE in terms of turnover has been from Rs 3, 7655 million in 2001-02 to Rs 277673412 million in 2013-14. This shows that index options witnessed a CAGR of 110.04% in last decade in trading volume and a CAGR of 104.27% in terms of number of

contracts traded. In terms of trading volume and number of contracts traded, the share of index options in total derivatives trading volume has increased significantly and on a continuous yearly basis.

Above table shows that till the year 2007-08, the share of index options in total derivatives trading volume was 10.41% but in the year 2008-09 and 2009-10, index options accounted for a share of 33.89% and 45.45% respectively and this increased to a share of 72.67% in 2013-14. Increased volume in index options can be attributed to the global financial crisis which made options the most preferred product for trading since they provide better hedge in times of uncertainty. A people had less appetite for risk at that particular time.

The index options were allowed for trading on BSE Sensex on June 1, 2001. The Table 10 shows the business growth of Index Options from 2001-02 to 2013-14 in overall equity derivatives market. The Table reveals that the Index Options contributed only 2.30% in terms of numbers of contracts traded and 4.36% in terms of trading volume in total derivatives market in 2001-02. But in 2002-03 and 2003-04 it contributed zero percent in total equity derivatives segment at BSE means there was no contribution any trading volume. In year 2005-06 almost 49.26% contributed in number of contracts traded but there were only Rs 32 million value of the contracts and which shows 36.45% proportion in total and in 2009-10 with 58.44% share in terms of number of contracts traded but 58.85 percent share in total turnover. And this situation was created big question mark against BSE means the participators are more divert towards NSE, so BSE has put more efforts for to alive the derivative segment at BSE and in result of that BSE is getting good favor from participators. The year 2013-14 shows marking growth in trading of Index option through around 98.15% share in number of contracts traded and more than 98.22% in terms of turnover. The Index option contract shows the CAGR 165.51% in terms of number of contracts traded and CAGR of 162.65 % in terms of trading volume up to FY 2013-14 from its introduction in the BSE.

Table 13 shows the growth of stock options at NSE in terms of number of contracts traded and trading volume since inception. The individual stock options were allowed for trading on July 2, 2001. Individual stock options were allowed for trading before individual stock futures. The above Table reveals the growth of stock options at NSE has been from Rs 25,1625 in 2000 - 01 million to Rs 24094886 million in 2013-14. This indicates that stock options witnessed a CAGR of 46.25 % in last decade in terms of trading volume and a CAGR of 43.66% in terms of number of contracts traded. As of March 2011, there were 223 stocks options available for trading at NSE.

Table 14 shows the growth of stock options at BSE in terms of number of contracts traded and trading volume since inception. The individual stock options were allowed for trading on July 9, 2001. Individual stock options were allowed for trading before individual stock futures. From the above table, it has been seen that at the time of introduction in year 2001-02 the stock option contributed 4.86% in total number of contracts traded and 5.92% in terms of turnover. But after that it was reduced up to 2003-04 and then after there was total lapsed from the market means that the participation was moved in other market or same market with other place like NSE platform. However, from 2011-12 it is looking like recovery has been started from participation. This contract shows the CAGR from FY 2001-02 to 2013-14 of 60.97 % in number of contracts traded and 64.91% in terms of trading value.

Table 1. Analysis of index futures at NSE

Performance of Index futures in NSE						
Year	Total no of contracts	% Growth in contracts	% share of total contracts	Total turnover (in Rs Million)	% Growth in turnover	% share of total turnover
2000-01	90580	-	100.00	23650		100.00
2001-02	1025588	1032.25	24.44	214819	808.33	21.08
2002-03	2126763	107.37	12.68	439516	104.60	9.99
2003-04	17191668	708.35	30.23	5544625	1161.53	26.03
2004-05	21635449	25.85	28.09	7721470	39.26	30.32
2005-06	58537886	170.56	37.14	15137550	96.04	31.38
2006-07	81487424	39.20	37.57	25395740	67.77	34.52
2007-08	156598579	92.18	36.85	38206673	50.45	29.19
2008-09	210428103	34.37	32.01	35701114	-6.56	32.42
2009-10	178306889	-15.26	26.25	39343887	10.20	22.27
2010-11	165023653	-7.45	15.96	43567545	10.74	14.90
2011-12	146188740	-11.41	12.13	35779984	-17.87	11.41
2012-13	96100385	-34.26	8.49	25271307	-29.37	8.01
2013-14	105270529	9.54	8.20	30852964	22.09	8.07

Source: compiled from NSE &amp; ISMR

Table 2. Analysis of Index Futures At BSE

Index Futures performance in BSE						
Year	No of contracts	% Growth in contracts	% share of total contracts	Total turnover (in Rs Mn)	% Growth in turnover	% share of total turnover
2000-01	76375		100.00	16530		100.00
2001-02	79552	4.16	75.75	12760	-22.81	66.25
2002-03	111324	39.94	80.66	18110	41.93	73.11
2003-04	246443	121.37	64.47	65720	262.89	54.43
2004-05	449630	82.45	84.56	13596	-79.31	35.11
2005-06	89	-99.98	43.84	50	-99.63	56.95
2006-07	1638779	1841224.72	92.00	554908	1109716.00	94.04
2007-08	7157078	336.73	96.02	2346601	322.88	96.84
2008-09	495830	-93.07	99.86	117572	-94.99	99.85
2009-10	3744	-99.24	41.47	960	-99.18	41.03
2010-11	5613	49.92	99.82	1541	60.52	99.84
2011-12	7073334	125917.00	21.95	1784488	115700.65	22.07
2012-13	4701927	-33.53	1.79	1224298	-31.39	1.71
2013-14	2136269	-54.57	0.71	634938	-48.14	0.69

Source: compiled from NSE &amp; ISMR

Table 3

Total performance of index futures (BSE+NSE)				
Year	Total no of contracts	% Growth in contracts	Total turnover(in Rs Mn)	% Growth in turnover
2000-01	166955		40180	
2001-02	1105140	561.94	227579	466.40
2002-03	2238087	102.52	457626	101.08
2003-04	17438111	679.15	5610345	1125.97
2004-05	22085079	26.65	7735066	37.87
2005-06	58537975	165.06	15137600	95.70
2006-07	83126203	42.00	25950648	71.43
2007-08	163755657	97.00	40553274	56.27
2008-09	210923933	28.80	35818686	-11.67
2009-10	178310633	-15.46	39344847	9.84
2010-11	165029266	-7.45	43569086	10.74
2011-12	153262074	-7.13	37564472	-13.78
2012-13	100802312	-34.23	26495605	-29.47
2013-14	107406798	6.55	31487902	18.84

Source: compiled from BSE &amp; NSE

Table 4

Percentage wise performance of Index futures				
Year	No of contracts		Total turnover	
	% share of BSE	% share of NSE	% share of BSE	% share of NSE
2000-01	45.75	54.25	41.14	58.86
2001-02	7.20	92.80	5.61	94.39
2002-03	4.97	95.03	3.96	96.04
2003-04	1.41	98.59	1.17	98.83
2004-05	2.04	97.96	0.18	99.82
2005-06	0.00	100.00	0.00	100.00
2006-07	1.97	98.03	2.14	97.86
2007-08	4.37	95.63	5.79	94.21
2008-09	0.24	99.76	0.33	99.67
2009-10	0.00	100.00	0.00	100.00
2010-11	0.00	100.00	0.00	100.00
2011-12	4.62	95.38	4.75	95.25
2012-13	4.66	95.34	4.62	95.38
2013-14	1.99	98.01	2.02	97.98

Source: compiled from ISMR

Table 5. Analysis of Stock Futures At NSE

Stock Futures performance in NSE						
Year	Total no of contracts	% Growth in contracts	% share of total contracts	Total turnover (in Rs Mn)	% Growth in turnover	% share of total turnover
2000-01						
2001-02	1957856		46.65	515155		50.54
2002-03	10676843	445.33	63.67	2865321	456.21	65.14
2003-04	32368842	203.17	56.91	13059493	355.78	61.30
2004-05	47043066	45.33	61.08	14840560	13.64	58.27
2005-06	80905493	71.98	51.33	27916970	88.11	57.87
2006-07	104955401	29.73	48.39	38309670	37.23	52.08
2007-08	203587952	93.98	47.90	75485632	97.04	57.66
2008-09	221577980	8.84	33.71	34796421	-53.90	31.60
2009-10	145591240	-34.29	21.43	51952466	49.30	29.41
2010-11	186041459	27.78	17.99	54957567	5.78	18.79
2011-12	158344617	-14.89	13.14	40746707	-25.86	13.00
2012-13	147711691	-6.72	13.05	42238719	3.66	13.40
2013-14	170414186	15.37	13.27	49492817	17.17	12.95

Source: compiled from ISMR

Table 6. Analysis of stock futures at BSE

Stock Futures performance in BSE						
Year	Total no of contracts	% Growth in contracts	% share of total contracts	Total turnover (in Rs Million)	% Growth in turnover	% share of total turnover
2000-01	0			0		
2001-02	17951		17.09	4520		23.47
2002-03	25842	43.96	18.72	6440	42.48	26.00
2003-04	128193	396.06	33.54	51710	702.95	42.83
2004-05	6725	-94.75	1.26	2128	-95.88	5.50
2005-06	12	-99.82	5.91	4.9	-99.77	5.58
2006-07	142433	1186841.67	8.00	35155	717348.98	5.96
2007-08	295117	107.20	3.96	76092	116.45	3.14
2008-09	299	-99.90	0.06	84.9	-99.89	0.07
2009-10	8	-97.32	0.09	3	-96.47	0.13
2010-11	0	-100.00	0.00	0	-100.00	0.00
2011-12	326342		1.01	102157		1.26
2012-13	116933	-64.17	0.04	34200	-66.52	0.05
2013-14	1901877	1526.47	0.63	545994	1496.47	0.59

Source: compiled from BSE

Table 7

Total performance of sock futures				
Year	Total no of contracts	% Growth in contracts	Total turnover (in Rs Million)	% Growth in turnover
2000-01	0		0	
2001-02	1975807		519675	
2002-03	10702685	441.69	2871761	452.61
2003-04	32497035	203.63	13111203	356.56
2004-05	47049791	44.78	14842688	13.21
2005-06	80905505	71.96	27916974.9	88.09
2006-07	105097834	29.90	38344825	37.35
2007-08	203883069	93.99	75561724	97.06
2008-09	221578279	8.68	34796505.9	-53.95
2009-10	145591248	-34.29	51952469	49.30
2010-11	186041459	27.78	54957567	5.78
2011-12	158670959	-14.71	40848864	-25.67
2012-13	147828624	-6.83	42272919	3.49
2013-14	172316063	16.56	50038811	18.37

Source: Compiled from BSE &amp; NSE

Table 8

Percentage wise performance of stock futures				
Year	No of contracts		Total turnover	
	% share of BSE	% share of NSE	% share of BSE	% share of NSE
2000-01				
2001-02	0.91	99.09	0.87	99.13
2002-03	0.24	99.76	0.22	99.78
2003-04	0.39	99.61	0.39	99.61
2004-05	0.01	99.99	0.01	99.99
2005-06	0.00	100.00	0.00	100.00
2006-07	0.14	99.86	0.09	99.91
2007-08	0.14	99.86	0.10	99.90
2008-09	0.00	100.00	0.00	100.00
2009-10	0.00	100.00	0.00	100.00
2010-11	0.00	100.00	0.00	100.00
2011-12	0.21	99.79	0.25	99.75
2012-13	0.08	99.92	0.08	99.92
2013-14	1.10	98.90	1.09	98.91

Source: compiled from SEBI

Table 9. Analysis of index options at NSE

Index options in NSE						
Year	No of contracts	Growth in contracts	% share of total contracts	Turnover	% Growth in turnover	% share of total turnover
2000-01						
2001-02	175900		4.19	37655		3.69
2002-03	442241	151.42	2.64	92470	145.57	2.10
2003-04	1732414	291.74	3.05	528233	471.25	2.48
2004-05	3293558	90.11	4.28	1219536	130.87	4.79
2005-06	12935116	292.74	8.21	3384690	177.54	7.02
2006-07	25157438	94.49	11.60	7919060	133.97	10.77
2007-08	55366038	120.08	13.03	13621109	72.00	10.41
2008-09	212088444	283.07	32.26	37315018	173.95	33.89
2009-10	341379523	60.96	50.26	80279642	115.14	45.45
2010-11	650638557	90.59	62.91	183653657	128.77	62.79
2011-12	864017736	32.80	71.70	227200316	23.71	72.47
2012-13	820877149	-4.99	72.55	227815742	0.27	72.25
2013-14	928565175	13.12	72.29	277673412	21.89	72.67

Source: Compiled NSE &amp; ISMR

Table 10. Analysis of index options at BSE

Index options in BSE						
Year	No of contracts	Growth in contracts	% share of total contracts	Total turnover (in Rs Mn)	% Growth in turnover	% share of total turnover
2000-01	0		0.00	0		0.00
2001-02	2415		2.30	840		4.36
2002-03	43	-98.22	0.03	10	-98.81	0.04
2003-04	1	-97.67	0.00	0.3	-97.00	0.00
2004-05	75275	7527400.00	14.16	22972	7657233.33	59.33
2005-06	100	-99.87	49.26	32	-99.86	36.45
2006-07	2	-98.00	0.00	0.6	-98.13	0.00
2007-08	1161	57950.00	0.02	387	64400.00	0.02
2008-09	373	-67.87	0.08	91	-76.49	0.08
2009-10	5276	1314.48	58.44	1377	1413.19	58.85
2010-11	10	-99.81	0.18	2.5	-99.82	0.16
2011-12	24775644	247756340.00	76.89	6183423	247336820.00	76.48
2012-13	257233961	938.25	98.02	70274816	1036.50	98.10
2013-14	296359575	15.21	98.15	90552006	28.85	98.22

Source: compiled from BSE

Table 11

Total performance of index options				
Year	Total contracts	Growth in contracts	Total turnover	Growth in turnover
2000-01	0		0	
2001-02	178315		38495	
2002-03	442284	148.04	92480	140.24
2003-04	1732415	291.70	528233.3	471.19
2004-05	3368833	94.46	1242508	135.22
2005-06	12935216	283.97	3384722	172.41
2006-07	25157440	94.49	7919060.6	133.96
2007-08	55367199	120.08	13621496	72.01
2008-09	212088817	283.06	37315109	173.94
2009-10	341384799	60.96	80281019	115.14
2010-11	650638567	90.59	183653659.5	128.76
2011-12	888793380	36.60	233383739	27.08
2012-13	1078111110	21.30	298090558	27.73
2013-14	1224924750	13.62	368225418	23.53

Source: compiled NSE, BSE &amp; ISMR

Table 12

Percentage wise performance of Index options				
Year	No of contracts		Turnover	
	% share of bse	% share of nse	% share of bse	% share of nse
2000-01				
2001-02	1.35	98.65	2.18	97.82
2002-03	0.01	99.99	0.01	99.99
2003-04	0.00	100.00	0.00	100.00
2004-05	2.23	97.77	1.85	98.15
2005-06	0.00	100.00	0.00	100.00
2006-07	0.00	100.00	0.00	100.00
2007-08	0.00	100.00	0.00	100.00
2008-09	0.00	100.00	0.00	100.00
2009-10	0.00	100.00	0.00	100.00
2010-11	0.00	100.00	0.00	100.00
2011-12	2.79	97.21	2.65	97.35
2012-13	23.86	76.14	23.57	76.43
2013-14	24.19	75.81	24.59	75.41

Source: compiled from SEBI



Table 13. Analysis of stock options at NSE

Stock options in NSE						
Year	No of contracts	Growth in contracts	% share of total contracts	Turnover	Growth in turnover	% share of total turnover
2000-01						
2001-02	1037529		24.72	251625		24.69
2002-03	3523062	239.56	21.01	1001332	297.95	22.76
2003-04	5583071	58.47	9.82	2172120	116.92	10.20
2004-05	5045112	-9.64	6.55	1688360	-22.27	6.63
2005-06	5240776	3.88	3.32	1802530	6.76	3.74
2006-07	5283310	0.81	2.44	1937950	7.51	2.63
2007-08	9460631	79.07	2.23	3591366	85.32	2.74
2008-09	13295970	40.54	2.02	2292268	-36.17	2.08
2009-10	14016270	5.42	2.06	5060652	120.77	2.87
2010-11	32508393	131.93	3.14	10303441	103.60	3.52
2011-12	36494371	12.26	3.03	9770311	-5.17	3.12
2012-13	66778193	82.98	5.90	20004273	104.75	6.34
2013-14	80174431	20.06	6.24	24094886	20.45	6.31

Source: compiled from NSE &amp; ISMR

Table 14. Analysis of stock options at BSE

Stock options in BSE						
Year	No of contracts	Growth in contracts	% share of total contracts	Turnover	Growth in turnover	% share of total turnover
2000-01	0		0.00	0		0.00
2001-02	5105		4.86	1140		5.92
2002-03	802	-84.29	0.58	210	-81.58	0.85
2003-04	7621	850.25	1.99	3310	1476.19	2.74
2004-05	89	-98.83	0.02	26	-99.21	0.07
2005-06	2	-97.75	0.99	0.9	-96.54	1.03
2006-07	6	200.00	0.00	2	122.22	0.00
2007-08	15	150.00	0.00	3.5	75.00	0.00
2008-09	0	-100.00	0.00	0	-100.00	0.00
2009-10	0		0.00	0		0.00
2010-11	0		0.00	0		0.00
2011-12	47505		0.15	14691		0.18
2012-13	387870	716.48	0.15	102463	597.45	0.14
2013-14	1544720	298.26	0.51	461306	350.22	0.50

Source: compiled from: BSE &amp; ISMR

Table 15

Total performance of stock options				
Year	Total contracts	Growth in contracts	Total turnover	Growth in turnover
2000-01	0		0	
2001-02	1042634		252765	
2002-03	3523864	237.98	1001542	296.23
2003-04	5590692	58.65	2175430	117.21
2004-05	5045201	-9.76	1688386	-22.39
2005-06	5240778	3.88	1802530.9	6.76
2006-07	5283316	0.81	1937952	7.51
2007-08	9460646	79.07	3591369.5	85.32
2008-09	13295970	40.54	2292268	-36.17
2009-10	14016270	5.42	5060652	120.77
2010-11	32508393	131.93	10303441	103.60
2011-12	36541876	12.41	9785002	-5.03
2012-13	67166063	83.81	20106736	105.49
2013-14	81719151	21.67	24556192	22.13

Source: compiled from NSE, BSE &amp; ISMR

Table 16

Percentage wise performance of stock options				
Year	No of contracts		Turnover	
	% share of BSE	% share of NSE	% share of BSE	% share of NSE
2000-01				
2000-02	0.49	99.51	0.45	99.55
2002-03	0.02	99.98	0.02	99.98
2003-04	0.14	99.86	0.15	99.85
2004-05	0.00	100.00	0.00	100.00
2005-06	0.00	100.00	0.00	100.00
2006-07	0.00	100.00	0.00	100.00
2007-08	0.00	100.00	0.00	100.00
2008-09	0.00	100.00	0.00	100.00
2009-10	0.00	100.00	0.00	100.00
2010-11	0.00	100.00	0.00	100.00
2011-12	0.13	99.87	0.15	99.85
2012-13	0.58	99.42	0.51	99.49
2013-14	1.89	98.11	1.88	98.12

Source: compiled from SEBI

Table 17. Business growth of futures &amp; options segment at NSE &amp; BSE

Performance of equity derivative in nse				
Year	No of contracts	% Growth in contracts	Turnover (in Rs Mn)	% Growth in turnover
2000-01	90580	-	23650	-
2001-02	4196873	4533.332965	1019254	4209.742072
2002-03	16768909	299.557218	4398639	331.5547449
2003-04	56875995	239.1752856	21304471	384.3423386
2004-05	77017185	35.4124618	25469926	19.55202267
2005-06	157619271	104.6546767	48241740	89.40667515
2006-07	216883573	37.59965493	73562420	52.48707862
2007-08	425013200	95.96375794	130904780	77.95061663
2008-09	657390497	54.67531291	110104821	-15.88938082
2009-10	679293922	3.331874297	176636647	60.42589725
2010-11	1034212062	52.24809593	292482210	65.58410441
2011-12	1205045464	16.5182179	313497318	7.185089309
2012-13	1131467418	-6.105831539	315330041	0.584605639
2013-14	1284424321	13.51845405	382114079	21.17909153

Source: Compiled from BSE, NSE, SEBI &amp; RBI

Table 18

Performance Of Equity Derivative In Bse				
Year	No of contracts	% Growth in contracts	Turnover (in Rs Mn)	% Growth in turnover
2000-01	76375	-	16530	-
2001-02	105023	37.51	19260	16.52
2002-03	138011	31.41	24770	28.61
2003-04	382258	176.98	120740.3	387.45
2004-05	531719	39.10	38722	-67.93
2005-06	203	-99.96	87.8	-99.77
2006-07	1781220	877348.28	590065.6	671956.49
2007-08	7453371	318.44	2423083.5	310.65
2008-09	496502	-93.34	117747.9	-95.14
2009-10	9028	-98.18	2340	-98.01
2010-11	5623	-37.72	1543.5	-34.04
2011-12	32222825	572953.97	8084759	523693.91
2012-13	262440691	714.46	71635777	786.06
2013-14	301942441	15.05	92194244	28.70

Source: compiled from NSE, SEBI &amp; RBI

Table 19

Performance Of Total Equity Derivative In Bse&Nse				
Year	Total no of contracts	% Growth in contracts	Total turnover (in Rs Mn)	% Growth in turnover
2000-01	166955	-	40180	-
2001-02	4301896	2476.68	1038514	2484.65
2002-03	16906920	293.01	4423409	325.94
2003-04	57258253	238.67	21425211.3	384.36
2004-05	77548904	35.44	25508648	19.06
2005-06	157619474	103.25	48241827.8	89.12
2006-07	218664793	38.73	74152485.6	53.71
2007-08	432466571	97.78	133327863.5	79.80
2008-09	657886999	52.12	110222568.9	-17.33
2009-10	679302950	3.26	176638987	60.26
2010-11	1034217685	52.25	292483753.5	65.58
2011-12	1237268289	19.63	321582077	9.95
2012-13	1393908109	12.66	386965818	20.33
2013-14	1586366762	13.81	474308323	22.57

Source: compiled from BSE, NSE, SEBI &amp; RBI

Table 20

Percentage wise contribution of BSE&NSE equity derivative				
Year	No of contracts		Total turnover	
	% share of BSE	% share of NSE	% share of BSE	% share of NSE
2000-01	45.75	54.25	41.14	58.86
2001-02	2.44	97.56	1.85	98.15
2002-03	0.82	99.18	0.56	99.44
2003-04	0.67	99.33	0.56	99.44
2004-05	0.69	99.31	0.15	99.85
2005-06	0.00	100.00	0.00	100.00
2006-07	0.81	99.19	0.80	99.20
2007-08	1.72	98.28	1.82	98.18
2008-09	0.08	99.92	0.11	99.89
2009-10	0.00	100.00	0.00	100.00
2010-11	0.00	100.00	0.00	100.00
2011-12	2.60	97.40	2.51	97.49
2012-13	18.83	81.17	18.51	81.49
2013-14	19.03	80.97	19.44	80.56

Source: Compiled from BSE, NSE &amp; SEBI

Table 21. CAGR Analysis of Equity Derivative at NSE

CAGR analysis in NSE										
Year	Index futures		Stock futures		Index options		Stock options		Total	
	No of contracts	Turnover	No of contracts	Turnover	No of contracts	Turnover	No of contracts	Turnover	Total no of contracts	Total turnover
2000-01	90580	23650	1957856	515155	175900	37655	1037529	251625	90580	23650
2013-14	105270529	30852964	170414186	49492817	928565175	277673412	80174431	24094886	1284424321	382114079
CAGR	72.10	73.64	45.09	46.29	104.27	110.04	43.66	46.25	108.62	110.73

Source: Compiled From Nse

Table 22. CAGR analysis of equity derivative at BSE

CAGR analysis in BSE										
Year	Index futures		Stock futures		Index options		Stock options		Total	
	No of contracts	Turnover	No of contracts	Turnover	No of contracts	Turnover	No of contracts	Turnover	Total no of contracts	Total turnover
2000-01	76375	16530	17951	4520	2415	840	5105	1140	76375	16530
2013-14	2136269	634938	1901877	545994	296359575	90552006	1544720	461306	301942441	92194244
CAGR	29.21	32.40	47.49	49.11	165.51	162.65	60.97	64.91	89.10	94.17

Source; compiled from BSE

**Table 23**

Total exchange wise CAGR analysis		
Year	Total contracts	Total turnover
2000-01	166955	40180
2013-14	1586366762	474308323
CAGR	102.29	105.70

Compiled from table 22&amp;23

**Table 24. Percentage of product wise contribution in the future trading of NSE**

Year	Index futures		Stock futures	
	No of contracts	Turnover	No of contracts	Turnover
2000-01	100.00	100.00	0.00	0.00
2001-02	24.44	21.08	46.65	50.54
2002-03	12.68	9.99	63.67	65.14
2003-04	30.23	26.03	56.91	61.30
2004-05	28.09	30.32	61.08	58.27
2005-06	37.14	31.38	51.33	57.87
2006-07	37.57	34.52	48.39	52.08
2007-08	36.85	29.19	47.90	57.66
2008-09	32.01	32.42	33.71	31.60
2009-10	26.25	22.27	21.43	29.41
2010-11	15.96	14.90	17.99	18.79
2011-12	12.13	11.41	13.14	13.00
2012-13	8.49	8.01	13.05	13.40
2013-14	8.20	8.07	13.27	12.95

Source; Compiled from NSE

**Table 25. Percentage of product wise contribution in the option trading of NSE**

Year	Index options		Stock options	
	No of contracts	Turnover	No of contracts	Turnover
2000-01	0.00	0.00	0.00	0.00
2001-02	4.19	3.69	24.72	24.69
2002-03	2.64	2.10	21.01	22.76
2003-04	3.05	2.48	9.82	10.20
2004-05	4.28	4.79	6.55	6.63
2005-06	8.21	7.02	3.32	3.74
2006-07	11.60	10.77	2.44	2.63
2007-08	13.03	10.41	2.23	2.74
2008-09	32.26	33.89	2.02	2.08
2009-10	50.26	45.45	2.06	2.87
2010-11	62.91	62.79	3.14	3.52
2011-12	71.70	72.47	3.03	3.12
2012-13	72.55	72.25	5.90	6.34
2013-14	72.29	72.67	6.24	6.31

Source; NSE

**Table 26. Percentage of product wise contribution in the future trading of BSE**

Year	Index futures		Stock futures	
	no of contracts	turnover	no of contracts	Turnover
2000-01	100.00	100.00	0.00	0.00
2001-02	75.75	66.25	17.09	23.47
2002-03	80.66	73.11	18.72	26.00
2003-04	64.47	54.43	33.54	42.83
2004-05	84.56	35.11	1.26	5.50
2005-06	43.84	56.95	5.91	5.58
2006-07	92.00	94.04	8.00	5.96
2007-08	96.02	96.84	3.96	3.14
2008-09	99.86	99.85	0.06	0.07
2009-10	41.47	41.03	0.09	0.13
2010-11	99.82	99.84	0.00	0.00
2011-12	21.95	22.07	1.01	1.26
2012-13	1.79	1.71	0.04	0.05
2013-14	0.71	0.69	0.63	0.59

Source: Compiled from BSE

**Table 27. Percentage of product wise contribution in the option trading of BSE**

Year	Index options		Stock options	
	No of contracts	Turnover	No of contracts	Turnover
2000-01	0.00	0.00	0.00	0.00
2001-02	2.30	4.36	4.86	5.92
2002-03	0.03	0.04	0.58	0.85
2003-04	0.00	0.00	1.99	2.74
2004-05	14.16	59.33	0.02	0.07
2005-06	49.26	36.45	0.99	1.03
2006-07	0.00	0.00	0.00	0.00
2007-08	0.02	0.02	0.00	0.00
2008-09	0.08	0.08	0.00	0.00
2009-10	58.44	58.85	0.00	0.00
2010-11	0.18	0.16	0.00	0.00
2011-12	76.89	76.48	0.15	0.18
2012-13	98.02	98.10	0.15	0.14
2013-14	98.15	98.22	0.51	0.50

Source; compiled from BSE

As the study has shown earlier analysis in business growth in each and every product, there is a remarkable change from the introduction. Table 24 is indicating that in FY 2000-01 only Index futures was introduced and from next year onwards others three products were also introduced. So, the growth in terms of trading value the CAGR is 110.73 percent when CAGR of 108.62 percent in terms of number of contracts traded proves the derivative market is being preferred market by participators. Introduction of derivatives products in Indian Capital Market gave the smile on the face of investors and traders in 2000 and which is reflecting from the table given below. The data in table is revealing that the products were well accepted by participators in Bombay stock exchange. The derivatives growth in BSE shows up to 2007-08 excludes 2005-06 since introduction of the products, but due to global financial crises and change in preference of platform from BSE to NSE the trend changed up to FY 2010-11. This change became an issue for the BSE as hurdle in development of BSE platform, and to fight against this serious issue BSE put great efforts and again fill the soul in the body of BSE derivative segment.

#### **Relative Analysis of All Equity Derivative Products at NSE And BSE CAGR Analysis**

The relative analysis of all equity derivative products in terms of Compound Annual Growth Rate (CAGR) shows that Index options have witnessed the highest growth rate followed by Index futures, Stock futures and Stock Options. Index options have picked up particularly since the last three fiscal years.

The relative analysis of all equity derivative products in terms of Compound Annual Growth Rate (CAGR) shows that Index options have witnessed the highest growth rate followed by Index futures, Stock futures and Stock Options same like NSE. The Index option at BSE has higher CAGR than NSE platform, but the trading was not continued in index option from its introduction. The good GAGR reflecting in all products only because of serious concentration in FY 2013-14 behind development of derivatives segment at BSE platform.

#### **Percentage Share of Derivative Products in Total Derivative Trading of NSE**

Table 24 & 25 show that in the year 2000-01, Index futures were only available for trading and it accounted for a share of 100% of the turnover. However, the following fiscal year 2001-02 saw 50.54% of the share in turnover by stock futures followed by stock options (24.69%), index futures (21.08%) and index options (3.69%). The most commendable performance during FY 2001-02 was that of stock futures which was introduced only before four months (i.e. in Nov. 9, 2001) prior to the closing of the fiscal 2001-02. Stock options were the second most favored product for trading. Highest percentage of stock futures trading was witnessed in the year 2002-03 (65.14%) while stock options accounted for 22.76% of the total turnover in the derivatives segment. This year particularly showed the market confidence in the single stock based

derivatives which together accounted for nearly 88% of the market share in derivatives turnover. Index futures turnover dwindled significantly and it accounted for a share of 9.99%. This was the last year when stock options saw a significant share of 22.76%, after that the volumes only kept dwindling and ranged between 2-6.75%. However, over and above when period was passed out, gradually, the index option has being most preferred product day-by-day. The year 2002-03, again saw revival of index futures and this time the market showed more confidence in the futures product category (both in index and stock futures). The percentage share of index futures was swapped by stock options. Since the year 2003-04, the Indian markets saw a set range of percentage share of different derivative market products. The index futures broadly accounted for a share of 25-35% of trading, followed by stock futures (50-60%), index options (2-3%). From the year 2004-05, index options started gaining volumes (though not quite substantial). Major, drift in volumes have particularly been from stock futures to index options and this shift became quite evident in the year 2010-11 and 2011-12. The share of stock options came down by 87% followed by stock futures 74%, index futures 46% from 2001-02 to 2011-12 when there is a dominant growth in index options in the same period which only contributed 72% in total derivatives turnover. The near equilibrium point in index futures, index options and stock futures (31% to 33%) was reached during 2008-09. To summaries, among the four types of products available for trading in the futures and options segment of NSE, it has been observed that the index futures and stock futures are witnessing dwindling volumes in terms of the turnover, while index options have seen an increase in the volumes since last four years. Most significant fall has been witnessed by stock futures which accounted for a share of around 50% in derivatives market turnover. On the other hand, the index options have gained significantly. This reflects that the Indian securities market are maturing and understanding the usage of options.

#### **Percentage Share of Derivative Products in Total Derivative Trading of BSE**

In the year 2000-01, Index futures were only available for trading and it accounted for a share of 100% of the turnover. However, the following fiscal year 2001-02 saw 66.25% of the share in turnover by index futures followed by stock futures (23.47%), stock options (5.92%) and index option (4.36%). The most commendable performance during FY 2001-02 was that of index, stock futures were the second most favored product for trading. Table 26 & 27 show that in the FY 2000-01 only Index Futures was there and that's why which is indicating 100 percent proportion in that year, but over and above the others products were introduced after 2001-02. From 2001-02 to 2004-05, Index futures shared the higher in total at BSE with followed by Stock futures up to 2003-04 and Index option in 2004-05. In year 2005-06 contribution by Index futures and Index options were almost fifty-fifty and again there was a rally in in Index futures, as looking to the contribution that was fine but as the study has shown earlier there was not satisfactory participation at BSE platform against NSE platform. The BSE has started to put good effort in year 2013-14 and because of that the figure shows higher contribution in Index option product by participators and this product interest is same at NSE platform.

#### **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. Launch of equity derivatives in Indian market has been extremely encouraging and successful. The growth of derivatives in the recent years has surpassed the growth of its counterpart globally. India is one of the most successful developing country in terms of a vibrate market for exchange-traded derivatives. The equity derivatives market is playing a major role in shaping price discovery. Volatility in financial asset price, integration of financial market internationally, sophisticated risk management tools, innovations in financial engineering and choices at risk management strategies have been driving the growth of financial derivatives worldwide, also in India. Finally we can say there is big significance and contribution of derivatives to financial system.

Despite of encouraging growth and developments, industry analyst feels that the derivatives market has not yet, realized its full potential in terms of growth & trading. Analysts points out that the equity derivative markets on the BSE and NSE has been limited to only four products- index futures ,index options and individual stock futures and options, which in turn, are limited to certain select stocks only. Although recently NSE and BSE has added more products in their derivatives segment (Weekly Options, Currency futures, Mini Index etc.) but still it is far less than the depth and variety of products prevailing across many developed capital market.

As seen that derivatives products serve the extremely important economic functions of price discovery as well as risk management. The transparency, which emerges from their trading mechanism, ensures the price discovery in the underlying market. Further, they serve as risk management tools by facilitating the trading of risks among the market participants. These products enable market participants to take the desired risks and jettison the undesirable undertones.

The analysis, 25.58%, 9% and 33.35% of compounding annual growth in terms of institutional investors, retail investors and proprietary investors respectively, which indicates that proprietary investors are participating more in equity derivatives market followed by institutional and retail investors. However, in proprietary and institutional investors' percentage share in total turnover increased whereas in retail investors it decreased. But as a logical step to the derivatives segment progress in the Indian capital market, this segment presents wide opportunity to the investors to get better return with hedge the portfolio and equipped to become a dominant player in the market. The problem with derivatives instruments is not with the instruments per se but the lack of understanding of their risk/return characteristics by someone.

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