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EFFECTIVE AND PRAGMATIC ANALYSIS ON DERIVATIVE SEGMENT IN NATIONAL STOCK EXCHANGE

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Abstract

The National Stock Exchange of India Limited (NSE) is the leading stock exchange of India, located in Mumbai.NSE was established in 1992 as the first demutualized electronic exchange in the country. NSE was the first exchange in the country to provide a modern, fully automated screen-based electronic trading system which offered easy trading facility to the investors spread across the length and breadth of the country. Unlike countries like the United States where nearly 70% of the GDP is derived from larger companies and the corporate sector, the corporate sector in India accounts for only 12-14% of the national GDP (as of October 2016). Of these only 7,800 companies are listed of which only 4000 trade on the stock exchanges at BSE and NSE. Hence the stocks trading at the BSE and NSE account for only around 4% of the Indian economy, which derives most of its income related activity from the so called unorganized sector and households. The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with the launch of index futures on 12 June 2000. The futures and options segment of

NSE has made a global mark. In the Futures and Options segment, trading in NIFTY 50 Index, NIFTY IT index, NIFTY Bank Index, NIFTY Next 50 index and single stock futures are available. Trading in Mini Nifty Futures & Options and Long term Options on NIFTY 50 are also available. This manuscript underlines the assorted perspective and dimensions associated with the derivative segment in national stock exchange.

Keywords - Derivative Segment, Equity Derivatives, National Stock Exchange

Introduction

The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with the launch of index futures on June 12, 2000. The futures contracts are based on the popular benchmark Nifty 50 Index. The Exchange introduced trading in Index Options (also based on Nifty 50) on June 4, 2001. NSE also became the first exchange to launch trading in options on individual securities from July 2, 2001. Futures on individual securities were introduced on November 9, 2001. Futures and Options on individual securities are available on 173 securities stipulated by SEBI. The Exchange has also introduced trading in Futures and Options contracts based on Nifty IT, Nifty Bank, and Nifty Midcap 50, Nifty Infrastructure, Nifty PSE indices.

Since the launch of the Index Derivatives on the popular benchmark Nifty 50 Index in 2000, the National Stock Exchange of India Limited (NSE) today have moved ahead with a varied product offering in equity derivatives. The Exchange currently provides trading in Futures and Options contracts on 9 major indices and more than 100 securities.

NSE offers trading in the following segments

Equities

- Equities
- Indices

- Mutual Funds
- Exchange Traded Funds
- Initial Public Offerings
- Security Lending and Borrowing Scheme

Derivatives

- Equity Derivatives (including Global Indices like CNX 500, Dow Jones and FTSE)
- Currency Derivatives
- Interest Rate Futures

Debt

- Corporate Bonds

Literature Review

Various studies on Investment pattern & Investment behavior of investors had been conducted in foreign countries. However, in Indian context, the number is quite few. Depending on the various issues of investment, the review has been discussed in brief as follows:

Sesit (1997) stated that testimonies of such inefficiencies abounded: overwhelmed by settlement delays, sometimes many months long, the exchange periodically had to close to clean up house; after filling its vaults to the brim, an Indian custodial bank started storing share certificates in a trailer parked in an alley; and messengers queued up outside banks, each bearing one or more boxes stuffed with shares.

Charles (1999) has analysed that the astonishing growth in Americans' stock portfolios in the 1990s has been a major force behind the growth of consumer spending. This article reviews the relationship between stock market movements and consumption.

Bhardwaj (2003) has stated the literature on globalization. He found the pervasiveness of the west's perception of the world affect on Indian investors that affects the trends in investor's choice. They are hugely affected by the west's views and so changes in Indian trends occur.

Ranganathan (2003) has stated the investor behavior from the marketing world and financial economics has brought together to the surface an exciting area for study and research: behavioral finance. The realization that this is a serious subject is, however, barely dawning. Analysts seem to treat financial markets as an aggregate of statistical observations, technical and fundamental analysis.

According to Kumar (2003), the derivative segment of financial markets, though nascent in India, is the one that is likely to see explosive growth in the years ahead.

Shrotriya (2003) conducted a survey on investor preferences in which he depicted the linkage of investment with the factor so considered while making investment. He says "There are various factors and their linkage also. These factors help us how to ensure safety, liquidity, capital appreciation and tax benefits along with returns."

Dutt and Sundharam (2005) stated that moderate speculation is not only inevitable but necessary and desirable for the proper working of a stock exchange. However, speculation often degenerates into over-speculation and into illegitimate or manipulative speculation in Indian stock exchanges and thus endangers the welfare of the investors and the community as a whole. The popular prejudice against stock exchange in India is due to the existence of manipulative speculation.

Agarwal and Agarwal (2005) stated that trading terminals of NSE and BSE are available in every corner of the country not only in big cities but also in small cities and towns throughout the country. There have been substantial improvements in functioning of the capital market. Risks

have been reduced by margining, screen based trading system and depositories to allow on-line transfer entry and so on.

Dijk (2007) has conducted 25 years of research on the size effect in international equity returns. Since Banz's (1981) original study, numerous papers have appeared on the empirical regularity that small firms have higher risk-adjusted stock returns than large firms.

Vasudev (2007) analysed the developments in the capital markets and corporate governance in India since the early 1990s when the government of India adopted the economic liberalization programme.

Johnson (2008) has stated that Product quality is probably under-valued by firms because there is little consensus about appropriate measures and methods to research quality. The authors suggest that published ratings of a product's quality are a valid source of quality information with important strategic and financial impact. The authors test this thesis by an event analysis of abnormal returns to stock prices of firms whose new products are evaluated in the Wall Street Journal.

Patnaik and shah (2008) has analysed on the preferences of foreign and domestic institutional investors in Indian stock markets. Foreign and domestic institutional investors both prefer larger, widely dispersed firms and do not chase returns. However, we and evidence of strong differences in the behavior of foreign and domestic institutional investors.

Bhatnagar (2009) has analysed of Corporate Governance and external finance in transition economies like India. The problem in the Indian corporate sector is that of disciplining the dominant shareholder and protecting the minority shareholders.

Mayank (2009) has analysed the role of two important forces - the regulator and the capital market as determinant of external finance in transition economies analyses the changing pattern and future prospectus of external finance to India and reviews the role of external finance. Under this framework, the study evaluates current Indian corporate governance practices in light of external finance.

Rajeshwari and Moorthy (2013) has conducted the study and analysed that Mutual Fund is a retail product designed to target small investors, salaried people and others who are intimidated by the mysteries of stock market but, nevertheless, like to reap the benefits of stock market investing.

Securities and Exchange Board of India (SEBI) Act, 1992

SEBI Act, 1992 provides for establishment of Securities and Exchange Board of India (SEBI) with statutory powers for (a) protecting the interests of investors in securities (b) promoting the development of the securities market and (c) regulating the securities market. Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market.

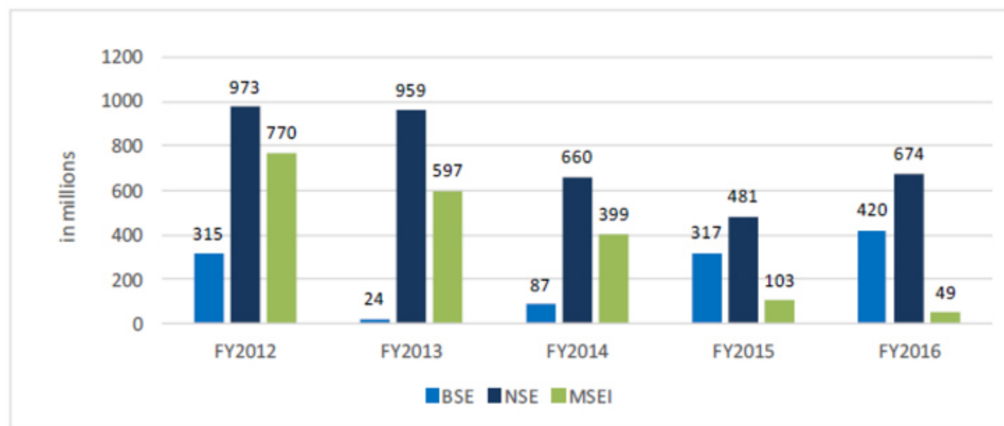
SEBI has been obligated to perform the aforesaid functions by such measures as it thinks fit. In particular, it has powers for:

- Regulating the business in stock exchanges and any other securities markets.
- Registering and regulating the working of stock brokers, sub - brokers etc.
- Promoting and regulating self - regulatory organizations.
- Prohibiting fraudulent and unfair trade practices relating to securities markets.
- Calling for information from, undertaking inspection, conducting inquiries and audits of the stock exchanges, mutual funds and other persons associated with the securities market and other intermediaries and self - regulatory organizations in the securities market.

- Performing such functions and exercising according to Securities Contracts (Regulation) Act, 1956, as may be delegated to it by the Central Government.

Equity and Currency Derivatives

The term "Derivative" indicates that it has no independent value, i.e. its value is entirely "derived" from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, live stock or anything else. In other words, Derivative means a forward, future, option or any other hybrid contract of pre determined fixed duration, linked for the purpose of contract fulfillment to the value of a specified real or financial asset or to an index of securities.



Source: BSE, NSE, MSEI

Figure 1. Total Number of Contracts Trade in Currency Market

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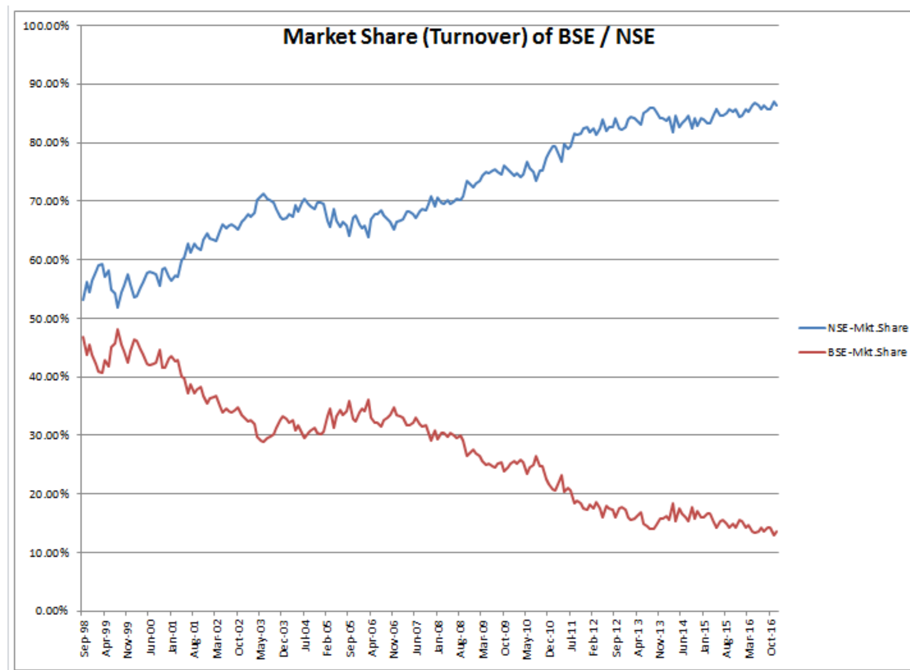

Figure 2. Market Share and Performance Phases of NSE

With Securities Laws (Second Amendment) Act,1999, Derivatives has been included in the definition of Securities.

A Derivative includes

- A security derived from a debt instrument, share, loan, whether secured or unsecured, risk instrument or contract for differences or any other form of security
- A contract which derives its value from the prices, or index of prices, of underlying securities

In the Indian markets, futures and options are standardized contracts, which can be freely traded on exchanges. These could be employed to meet a variety of needs.

- Earn money on shares that are lying idle

- Benefit from arbitrage
- Protect your securities against fluctuations in prices
- Transfer of risk

The derivates trading participants include Speculators and Arbitrageurs

Development of Exchange-Traded Derivatives

Derivatives have probably been around for as long as people have been trading with one another. Forward contracting dates back at least to the 12th century, and may well have been around before then. Merchants entered into contracts with one another for future delivery of specified amount of commodities at specified price. A primary motivation for pre-arranging a buyer or seller for a stock of commodities in early forward contracts was to lessen the possibility that large swings would inhibit marketing the commodity after a harvest. The following factors have been driving the growth of financial derivatives: Increased volatility in asset prices in financial markets, Increased integration of national financial markets with the international markets, Marked improvement in communication facilities and sharp decline in their costs, Development of more sophisticated risk management tools, providing economic agents a wider choice of risk management strategies, and Innovations in the derivatives markets, which optimally combine the risks and returns over a large number of financial assets leading to higher returns, have reduced risk as well as transactions costs as compared to individual financial assets.

Derivatives market at NSE

The derivatives trading on the exchange commenced with S&P CNX Nifty Index futures on June 12, 2000. The trading in index options commenced on June 4, 2001 and trading in options on individual securities commenced on July 2, 2001. Single stock futures were launched on November 9, 2001. The index futures and options contract on NSE are based on S&P CNX Nifty Index. Currently, the futures contracts have a maximum of 3-month expiration cycles. Three

contracts are available for trading, with 1 month, 2 months and 3 months expiry. A new contract is introduced on the next trading day following the expiry of the near month contract.

NSE admits members on its derivatives segment in accordance with the rules and regulations of the exchange and the norms specified by SEBI. NSE follows 2—tier membership structure stipulated by SEBI to enable wider participation. Those interested in taking membership on F&O segment are required to take membership of CM and F&O segment or CM, WDM and F&O segment. Trading and clearing members are admitted separately. Essentially, a clearing member (CM) does clearing for all his trading members (TMs), undertakes risk management and performs actual settlement. There are three types of CMs:

Self Clearing Member: A SCM clears and settles trades executed by him only either on his own account or on account of his clients.

Trading Member Clearing Member: TM—CM is a CM who is also a TM. TM—CM may clear and settle his own proprietary trades and client's trades as well as clear and settle for other TMs. *Professional Clearing Member* PCM is a CM who is not a TM. Typically, banks or custodians could become a PCM and clear and settle for TMs.

Futures and Options Markets

In recent years, derivatives have become increasingly important in the field of finance. While futures and options are now • actively traded on many exchanges, forward contracts are popular on the OTC market. Here these derivative contracts are explained in detail.

Forward contracts

A forward contract is an agreement to buy or sell an asset on a specified date for a specified price. One of the parties to the contract assumes a long position and agrees to buy the underlying asset on a certain specified future date for a certain specified price. The other party assumes a

short position and agrees to sell the asset on the same date for the same price. Other contract details like delivery date, price and quantity are negotiated bilaterally by the parties to the contract. The forward contracts are normally traded outside the exchanges.

The salient features of forward contracts are:

- They are bilateral contracts and hence exposed to counter—party risk.
- Each contract is custom designed, and hence is unique in terms of contract size, expiration date and the asset type and quality.
- The contract price is generally not available in public domain.
- On the expiration date, the contract has to be settled by delivery of the asset.

If the party wishes to reverse the contract, it has to compulsorily go to the same counterparty, which often results in high prices being charged. However forward contracts in certain markets have become very standardized, as in the case of foreign exchange, thereby reducing transaction costs and increasing transactions volume. This process of standardization reaches its limit in the organized futures market. Forward contracts are very useful in hedging and speculation. The classic hedging application would be that of an exporter who expects to receive payment in dollars three months later. He is exposed to the risk of exchange rate fluctuations. By using the currency forward market to sell dollars forward, he can lock on to a rate today and reduce his uncertainty. Similarly an importer who is required to make a payment in dollars two months hence can reduce his exposure to exchange rate fluctuations by buying dollars forward.

Index derivatives

Index derivatives are derivative contracts which derive their value from an underlying index. The two most popular index derivatives are index futures and index options. Index derivatives have become very popular worldwide. In his report, Dr. L. C. Gupta attributes the popularity of index derivatives to the advantages they offer. Institutional and large equity-holders need portfolio-hedging facility. Index—derivatives are more suited to them and more cost—effective than

derivatives based on individual stocks. Pension funds in the US are known to use stock index futures for risk hedging purposes. Index derivatives offer ease of use for hedging any portfolio irrespective of its composition. Stock index is difficult to manipulate as compared to individual stock prices, more so in India, and the possibility of cornering is reduced. This is partly because an individual stock has a limited supply, which can be cornered. Stock index, being an average, is much less volatile than individual stock prices. This implies much lower capital adequacy and margin requirements. Index derivatives are cash settled, and hence do not suffer from settlement delays and problems related to bad delivery, forged/fake certificates.

The L. C. Gupta committee suggested a phased introduction of derivative products in the following order:

- Index futures
- Index options
- Options on individual stocks

Conclusion

National Stock Exchange of India is one of the leading exchanges in the world on several key parameters. Number of contracts traded relate directly to the technology and liquidity of the exchange. NSE ranks in top 3 globally for Stock Futures and Index Futures and Options. Technology at the exchange remains backstage to fulfill the demand for capacity, reliability and performance ensuring the competitive edge of NSE as India's number one exchange platform. NSE's trading system, called National Exchange for Automated Trading (NEAT), is a state of-the-art client server based application. It has uptime record of over 99% with latency is in single digit millisecond level for all orders entered into the NEAT system. NSE has been continuously undertaking capacity enhancement measures so as to effectively meet the requirements of increased users and associated trading loads. The derivatives trading on the exchange commenced with S&P CNX Nifty Index futures on June 12, 2000. The trading in index options commenced on June 4, 2001 and trading in options on individual securities commenced on July 2, 2001. Single stock futures were launched on November 9, 2001. The index futures and options

contract on NSE are based on S&P CNX Nifty Index. Currently, the futures contracts have a maximum of 3-month expiration cycles. Three contracts are available for trading, with 1 month, 2 months and 3 months expiry. A new contract is introduced on the next trading day following the expiry of the near month contract. The futures and options trading system of NSE, called NEAT-F&O trading system, provides a fully automated screen based trading for Nifty futures & options and stock futures & options on a nationwide basis and an online monitoring and surveillance mechanism. It supports an anonymous order driven market which provides complete transparency of trading operations and operates on strict price time priority. It is similar to that of trading of equities in the Cash Market (CM) segment.

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