

An Analysis of Trading strategies using Derivatives in Indian stock market

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Abstract

In the year 1990's financial sector reforms has changed the Indian capital markets into a dynamic and extensive in the context of world financial market. With the arrival of globalization in India accurate efforts are made in strengthening the investor assurance. Financial markets are very resourceful in increasing the popularity of derivatives instruments which exemplifies how resourcefully markets are capable to package and manage risk. At the present in world markets for trade and business have become further incorporated, derivatives have strengthened these significant linkages between global markets, increasing market liquidity and effectiveness. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. By underling asset prices, derivative products lessen the effect of fluctuations in asset prices on the profitability and cash flow position of risk- averse investors. Derivatives has been commenced in June 2000, derivatives market has exhibited exponential growth both in terms of volume and number of contract traded. Thus the present study is an effort to analyze derivative trading in India, rules and regulation in relation to Indian stock market. It is an endeavor to demonstrate the growth and expansion of financial derivative of NSE in India in the time period 13 years.

Keywords: Financial Derivatives, Derivative Market, Financial Market, NSE, Derivative Trading, Globalization

I. Introduction

With the increase in globalization of economic activity and the unparalleled currency and interest rate volatility, risk hedging techniques have grown at a rapid speed minimizing the effect of uncertain cash flows. The emergence of the market for derivative instruments can be traced back to the eagerness of risk unwilling economic agents to protect themselves against uncertainties arising out of fluctuations in asset prices. Derivatives are projected to smooth progress of the hedging of price risks or financial transaction over a certain time period. By providing investors and issuers with a wider range of tools for overseeing risks and raising capital, derivatives

to deal in approved derivatives contracts. There are enormous increasing trends in the turnover of NSE segment. However, the trading volume in the BSE derivative segment has been decreasing since 2005. The present paper aims to assess the rules, regulations and policies framed in developments of derivative trading in Indian stock market. It is an attempt to exhibit the growth and improvement of financial derivative of NSE in India taken from 2000–2001 to 2012-13. Data and information for the research study were collected and analyzed from secondary published sources, viz., books, newspapers, web sites and research studies.

II. Objectives Of The Study

In the past decade, many promising and developed economies have in full swing in introducing derivative contracts. Policy makers and regulators in these markets are anxious about the impact of futures on the underlying cash market. In this regards the present study seek to make a modest attempt to judge the rules ,regulations and policies framed in consider to developments of derivative trading in Indian stock market. To analysis the growth and trend of NSE derivatives market turnover. Globalization of financial markets has stressed a number of countries to change regulation and bring in recent financial contracts which have made it easier for the participants to undertake derivatives transactions. Financial derivatives have emerged as one of the biggest markets of the world during the past two decades. In this context the present study seeks to find out the influence of derivative in consideration of NSE in Indian capital market.

III. Review of Literature

The derivatives first came into existence in Japan rice market in early 1650s. Whereas, in India its origin goes back to June 2000. The derivatives market broadly can be classified into two categories one that is traded on exchange and other one traded over the counter. The derivative simple means the value of one variable depend upon the value of another variable, which is directly or indirectly related with it. It means that

they do not have worth of their own. (Dr. Mohd. Yameen,2014) Derivatives' trading was introduced in India during 2001, and the trade value of derivatives is almost three times that of cash market trade values. From those only about 20 percent of the options offered by the National Stock Exchange (NSE) are traded on an active basis. (R.Nagendran and S. Venkateswar,2014) Commodity derivatives trading (which is one of type of derivatives) spanning over 130 years, has had a long and chequered history in India. Mumbai's Cotton Exchange is one of the world's oldest cotton exchanges founded in the 1850's, even before the country's stock market exchange came into existence in 1875. It was essentially a tale of two cotton markets, the spot market at Sewree and the futures exchange at Kalbadevi and was formally called the East India Cotton Association. On January 26 1949, the Central Government passed the Forward Contracts (Regulation) Act, 1952 (FCRA) and established the Forward Market Commission (FMC) in 1953. Under the FCRA, futures trading were allowed in select agricultural commodities and their products under the auspices of Associations recognized by GOI. As a result, futures' trading was revived after a lapse of three and a half decades, towards the close of 20th century. (K G Karmakar, 2014) In the process of economic liberalization and deregulation in Indian agriculture sector, futures trading in agricultural commodities were reintroduced in 2003. This is governed by the National Commodity Derivatives Exchange of India (NCDEX). The benefits of futures markets in terms of their ability to predict future spot price aiding better risk management and price discovery were the main reasons for initiating such reforms by the government.

The role of commodity futures in providing its crucial role of price discovery and risk management to its stakeholders. (Dr. Teena Shivnani, Vrinda Goel,2014) Coming to the types of derivatives, a futures exchange or futures market is a financial exchange where people can trade standardized futures contracts; that is, a contract to buy specific quantities of a commodity or financial instrument at a specified price with delivery set at a specified time in the future. The primary objective of futures market is to provide a facility for hedging against market risk. The L.C. Gupta committee on Indian derivative markets clearly supported the introduction of exchange-traded futures to aid risk management strategies. (Anjali Prashad) One of the most common type of derivatives are Interest rate derivatives, which are the most traded derivative instrument in the international derivative market. But this product is not popular in Indian derivative market. In 1999, the Over the Counter (OTC) interest rate derivative products were introduced and successful in terms of volumes. The Indian financial market introduced exchange traded interest rate derivatives in the year 2003, 2009 and 2014. These products were failure twice. It was again introduced in market in year 2014. (Pradiptarathi Panda, M. Thiripalraju, 2015) Commodity Derivatives are another class of derivative that are traded in Indian Derivative market. Indian commodity derivatives markets are on their growth trajectory, but are simultaneously under a continuous scanner for its supposed role in triggering prices in the spot markets. For e.g. Market researches indicate that introduction of futures trading in turmeric has not led to any extra returns to the traders of the spot markets in case of the popular Indian spice Turmeric. (Bidisha Sarkar Datta, Indranil Sarker, 2015)

Derivatives Trading in India

Now-a-days in the worldwide scenario financial market has undergone massive changes due to amazing development of derivatives which play a remarkable place in implementing various financial policies. The emergence of derivatives market is an ingenious achievement of financial trade with an intend of providing a proficient explanation to the problem of risk that is surrounded in the price impulsiveness of the underlying asset. Derivatives market is reasonably a latest occurrence In India since its commencement in June 2000; it has exhibited exceptional improvement both in terms of volume and number of traded contracts. It is found out that in recent times derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts. India's assignation with derivatives began in 2000 when both the NSE and the BSE commenced trading in equity derivatives .In June 2000, index futures became the first type of derivate instruments to be launched in the Indian markets, followed by index options in June 2001, options in individual stocks in July 2001, and futures in single stock derivatives in November 2001. Since then, equity derivatives have come a long way. New products, an expanding list of eligible investors, rising volumes, and the best risk management framework for exchange- traded derivatives have been the hallmark of the journey of equity derivatives in India so far.

Rules and Regulatory Framework

A. Introduction of Derivative Contracts on Volatility Index

In continuance to the SEBI circular dated January 15, 2008 concerning the introduction of the volatility index, the capital market regulator, vide its circular dated April 27, 2010, resolute to allow stock exchanges to introduce derivatives contracts on volatility index. The introduction of derivatives contracts on volatility index is subject to the circumstance that the underlying volatility index has a track record of at least one year.

B. Introduction of Index Options with Tenure Up To Five Years

Further to SEBI's circular dated January 11, 2008, as regards the introduction of index options with tenure up to

three years, the SEBI certain to consent the stock exchanges to introduce option contracts on the SENSEX and the Nifty with a term up to five years. The introduction of such five-year option contracts will be subject to the condition that there are eight semi-annual contracts of the cycle June/December together with three serial monthly contracts, and three quarterly contracts of the cycle March/June/September/December.

C. Revised Exposure Margin for Exchange-Traded Equity Derivatives

In a modification to SEBI's circular on exposure margin, the SEBI decided (vide its circular dated July 7, 2010) that the exposure margin for exchange-traded equity derivatives shall be the higher of 5 percent or 1.5 times the standard deviation (of daily logarithmic returns of the stock price).

D. Physical Settlement of Stock Derivatives

In persistence to SEBI's circular dated June 20, 2001 and November 02, 2001 concerning the settlement of stock options and stock futures contracts, respectively, the SEBI— based on the recommendations of the Derivatives Market Review Committee and in discussion with stock exchanges—decided to make available flexibility to the stock exchanges to offer:

- a) Cash settlement (settlement by payment of differences) for both stock options and stock futures; or
- b) Physical settlement (settlement by delivery of underlying stock) for both stock options and stock futures.

Cash settlement for stock options and physical settlement for stock futures; or d) Physical settlement

E. Options on USD-INR spot rate

The SEBI, vide its circular dated July 30, 2010, has endorsed for the beginning of options on USD-INR spot rate on the currency derivatives segment of the stock exchanges.

Premium styled European call and put options can be introduced on the USD-INR spot rate. The contract would be settled in cash in Indian rupees, and the final settlement price would be the RBI Reference Rate on the date of expiry of the contracts.

Self clearing member in the currency derivatives (Circular date : May 13, 2011) With regard to the newly created category of self clearing member in the currency derivatives segment of a stock exchange (communicated vide notification no. LADNRO/ GN/2011- 12/01/11486 dated April 6, 2011), has the SEBI clarified that such self clearing member shall have a minimum net worth of ` 5 crore.

Liquidity enhancement schemes for illiquid securities in equity derivatives segment (Circular date : June 02, 2011) In discussion with the BSE, the MCX-SX, the NSE, and the USE, the SEBI has decided to permit stock exchanges to introduce one or more liquidity enhancement schemes (LES) to augment the liquidity of illiquid securities in their equity derivatives segments.

The regulatory framework in India is based on the L.C. Gupta Committee Report, and the J.R. Varma Committee Report. The L.C. Gupta Committee Report provides a perspective on division of regulatory responsibility bet ween the exchange and the SEBI. It recommends that SEBI's role should be restricted to approving rules, bye laws and regulations of a derivatives exchange as also to approving the proposed derivatives contracts before commencement of their trading. It emphasises the supervisory and advisory role of SEBI with a view to permitting desirable flexibility, maximizing regulatory effectiveness and minimizing regulatory cost. Regulatory requirements for authorization of derivatives brokers/dealers include relating to capital adequacy, net worth, certification requirement and initial registration with SEBI. It also suggests establishment of a separate clearing corporation, maximum exposure limits, mark to market margins, margin collection from clients and segregation of clients' funds, regulation of sales practice and accounting and disclosure requirements for derivatives trading. The J.R. Varma committee suggests a methodology for risk containment measures for index- based futures and options, stock options and single stock futures. The risk containment measures include calculation of margins, position limits, exposure limits and reporting and disclosure

Derivatives Products Traded in Derivatives Segment of NSE

Amongst all the products traded on NSE in Futures & Option segment, single stock futures also known as equity futures, are the most popular in provisions of volumes and number of contract traded, followed by index futures with turnover shares. NSE underway trading in index futures, based on popular S&P CNX Index, on June 12, 2000 as its first derivatives product. Trading on index options was introduced on June 4, 2001. Futures on individual securities started on November 9, 2001. The futures contracts are available on 2338 securities stipulated by the Securities & Exchange Board of India (SEBI) and trading in options on individual securities started from July 2, 2001. The options contra are American style and cash settled and are available on 233 securities. Trading in interest rate futures was introduced on 24 June 2003 but it was closed subsequently due to pricing problem. The NSE achieved another landmark in product introduction by launching Mini Index

Futures & Options with a minimum contract size of Rs 1 lakh. NSE created history by the introduction currency futures contract on US Dollar-Rupee on August 29, 2008 in Indian Derivatives market. Table 1 presents a description of the types of products traded at F& O segment of NSE with their introduction date.

IV. Conclusion

The advancement of financial derivatives have earned significant place in the midst of all the financial instruments due to improvement and revolutionized the landscape. The augmentation of Indian derivative market in the recent years has surpassed the growth of its counterpart globally. Advancement in the derivative markets is at a standstill in a gradient stage and there is enormous possibility for further development. SEBI have to take crucial steps for development in Derivative Market to attract more investors in the Indian stock market. In order to attain high-quality derivative market operations regulators and exchanges in discussion with market participants must come up with indispensable regulatory changes, which are delightful to all.

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