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DERIVATIVES STRATEGIES AND GOVERNMENT POLICIES TO CONTROL STOCK MARKET RISK

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ABSTRACT

Derivatives were introduced in India during the year 2000, with the hope that they will help to control over the risk of the stock market. Today, the business of financial derivative is almost 16.54 times of the business of cash market. In the year 2015-2016, the average daily turnover of financial derivatives in India has almost 251826.87 crore, as compared to cash market, which has only 15,225 crore average daily turnover. But, still the stock market in India is in a delimama of risk and uncertainty. So, there is a need to find out new ways and policies which helps in controlling the risk of the stock market up to certain extent.

Objective: This paper helps in finding out the measures that can assist the policy maker in controlling the risk of the stock market.

Scope: There are three sections in this paper. First section explains the risk controlling strategies of financial derivatives, especially in the context of futures and options. Second section elaborates the regulatory framework of the SEBI. The last section explains the other measure that can be used to mitigate the risk up to certain extent.

Strategies are game tactics formed by an investor to deal with the risk and achieve objectives. These strategies are based on an investor perception of how the market will move. Different strategies are available for different views on market movements

INTRODUCTION

RISK MANAGEMENT WITH FUTURES CONTRACTS

Future contracts strategies can be classified into three groups as mentioned below:

Hedging Strategies: Hedge means taking an opposite position that an investor already has to reduce the risk of price fluctuation. Futures contract provides a facility to control over the risk in the spot market. There are two hedging strategies: one is long futures and the second is short futures.

A situation where an investor has to take a long position on futures contracts in order to hedge against futures price volatility is known as a long futures strategy. The other situation is when an investor has to take a short position on futures contracts in order to hedge against futures price volatility.

Speculative Strategies: Speculators desire to take a long or short position in the market to earn profits from fluctuating market. A long futures contract represents the buying position and will give profits when spot price increases. Shot position means selling position and will give profits only when prices decreases. A Long futures will gives a return, if an investor believes that particular stock prices is undervalued and expect its price will go up in near or mid-month. Stock futures can be used by a speculator who believes that a particular security is overvalued and likely to see a fall in price, for this short futures strategy may be used. Speculators are a risk taker and may create fluctuation in stock prices.

Arbitrage Strategies: Arbitragers are those who are dealing in two markets; buy stocks from one market at lower price and sell it in another market at a higher price. The difference between the buying price and the selling price will be the profits to the arbitragers. Dealing in spot stock market and futures stock market provides the

opportunity to the arbitragers to earn profits with arbitrage strategies, like purchase stocks from spot market at lower price and short futures contracts at higher prices.

RISK MANAGEMENT WITH OPTIONS CONTRACTS

Sometimes, it is profitable to take a bullish view on a stock by buying a call options on the stock, rather than buying the stock itself. Similarly, it is sometimes better to hedge a stock with a put option rather than to sell the stock. Options strategies can be employed to earn, gain from the bull as well as the bear market. It can be used to take a bullish or bearish view on an asset or to hedge an existing exposure. But, options are much more versatile instruments that can be used to take a more strategic view on the underlying or its volatility. There are various strategies can be formulated in an options contract by taking two or more options contracts to earn profits in volatile stock market. There are various strategies of options contracts like Straddle, Strangle, Butterfly, and Calendar Spreads could be used to minimize the risk of the price fluctuation in the stock market.

- **Straddle** is an option strategy in which investor long a call and long a put at the same strike typically close to the current price.
- **Strangle** is a strategy in which long a call and long a put at a lower strike. The two strikes are typically on either side of the current price.
- **Butterfly is** the taking of two short calls one long call at a higher strike and one long call at a lower strike. By put-call parity all calls can be replaced by put.
- **Calendar Spreads** consist of a near-month short call and a far-month long call option. More complex spread could have a complex options strategy in the near-month and a reverse strategy in the far-month.

REGULATORY FRAMEWORK FOR DERIVATIVES

Security Exchange Board of India mentioned the regulatory framework for derivatives in their chapter three, which mentioned the objectives and major issues concerning the regulatory framework etc. to regulate derivatives markets.

Regulatory Objectives

The board believes that there should be some specified objectives of the regulation, which encourage the investors for healthy investment and also motivate them for more investment. Followings are the main objectives explained in the regulation:

- **Investor Protection:** More emphasis should be given on the protection of the investors.
- **Fairness and Transparency:** The trading should be fair and transparent, which also disclose the possible risk to the investors. In this regards the rules should be clear to the brokers as well as to the dealers. The deficiency of internal control system should be regulated by an innovative policy.
- **Safeguard for Client's Moneys:** To protect the interest of the investors the security money deposited by them with the broking members should be kept separately and should not be used to meet out their own liabilities. It should be mandatory for the dealer to segregate their accounts from the investors.
- **Competent and Honest Service:** The policy also specified that there should be some eligibility criteria for trading members. Qualified trading members help the investors more competently. The regulation makes it compulsory for the trading members to qualify the exams/modules prescribed by SEBI.
- **Market Integrity:** Possibilities of defaults should be minimized with the help of proper trading system and market integrity, which requires creating an appropriate rule for margins, capital adequacy, clearing & settlement, etc.

Other than the above mentioned points the regulatory framework also focused on enhancing the qualities of the stock market with cost-efficiency, price-discovery and price –continuity. Innovation in the field of financial instruments can join hands for enhancing the quality.

There is no doubt in the fact that the major objective of regulation of financial market has to create a strong economy. Derivatives are to be explored for hedging the risk, but there are also other participants like speculators and arbitrageurs are highly involved in derivatives trading. The risk to the derivatives traders are very high than the investors in the cash market.

As the high risk involved in derivatives, the regulatory frame should have to be stricter. The scope of regulation of derivatives should be wider.

There are various other measures through with the volatility of the stock market can be minimized and enhance the safe and healthy trading in the Indian stock market. there measures are mentioned as below:

MEASURES TO CONTROL VOLATILITY

The high amount of volatility is not good for the stock market and should be controlled for the growth of the stock market. But the question is that what should be the measures to be used to control over the volatility. There are various measures have been projected and used which helps in reducing in controlling volatility of the stock market returns. Security & Exchange Commission adopted some volatility controlling measures to protect the investors from volatile market, as mentioned below:

Background on Single-Stock Circuit Breakers: During the year 2010, the Commission permitted for single-stock circuit breaker on a pilot basis, in which trading discontinue for five minutes if a share's price moves up or down sharply in a five-minute window.

U.S. exchanges and the Financial Industry Regulatory Authority (FINRA) planned these actions in retort to unusually volatile trading on May 6, 2010, this exaggerated a huge number of individual securities but was not broad sufficient to activate the existing market-wide circuit breakers. These circuit breaker regulations were initially functional only stocks in the S&P 500 Index but were implemented on a pilot basis to all National Market System securities in June 2011.

Circuit Breakers: Panic selling is the major cause to increase the volatility of the stock market. Control over the panic selling during the huge declined stock market, coordination has to be conducted by the major stock exchanges and control over the red market with circuit breakers. During the year 2001, Indian stock exchange has introduced index-based market-wide circuit breakers in compulsory rolling settlement.

Price Band: The exchange also implemented price band on individual securities. There are three stages of a circuit breaker system of the index movement, i.e. 10%, 15% and 20%. Circuit breakers play an important role for both cash market and derivatives market when triggered. Table 1.1 represents the circuit breaker during the different market condition, which helps to control over volatility and risk of the stock market:

TABLE 1.1: Market Condition & Circuit Breaker

Step	Market Condition & Circuit Breaker
1	In case NSE or the BSE breached the triggered by movement market-wide circuit breakers should be applied.
2	There would be a provision for one-hour market halt, if there is a 10% movement of either of these indices, takes place before 1:00 p.m.
3	If the changes take place at or after 1:00 p.m., but before 2:30 p.m., a ½ hour trading halt would be take place and if the movement happens at or after 2:30 p.m., market should be continued trading at 10% level.
4	If the movement of either index is 15% takes place before 1 p.m., a two-hour halt shall be followed.
5	A one-hour halt shall be followed in case of 15% movement is reached on or after 1:00p.m., but before 2:00 p.m. and trading shall halt for the whole remaining day if the 15% movement is reached on or after 2:00 p.m.
6	If there is a movement in the either index of a 20% , the trading shall halt for the residue of the day.

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Pre Trading Session: Control over the opening price of the stock price, SEBI has been implemented Pre trading /Pre open session in July 2010 to discover opening price. Its main motive is to eliminate/ minimize opening volatility in prices of securities. The demand and supply of the securities will help in finding out the price of the first trade of the security of the day. Thus, it allows for overnight news in securities to be suitably reflected in the opening price. Table 1.2 shows that volatility can be controlled with some changes in pre-open session:

TABLE 1.2: Control over Volatility with Pre-Open Session

Step	Pre-open Session
1	The pre-open session is about the duration of 15 minutes, i.e. from 9:00 am to 9:15 am. Order collection period and order matching period is comprised as the pre-open session.
2	There shall be a silent period to facilitate the transition from pre-open session in the normal market after the completion of order matching.
3	All Securities forming part of BSE Sensex and NSE Nifty are subject to the pre Trading Session.

New Limit Up-Limit Down Mechanism: The Commission permitted a "limit up-limit down" mechanism on 31st May, 2012 to reinstate the single-stock circuit breaker rules. The fresh limit up-limit down instrument is projected to avoid trading in individual securities from happening exterior of a particular price band. Table 1.3 shows the various important points related to new limit up- limit down system:

TABLE 1.3: New Limit Up-Limit Down Mechanism

Step	New Limit Up-Limit Down Mechanism
1	A provision of price band suggest that a certain % level should be set as above and below the average price of the stock, which is directly earlier five-minute trading period. The price of the stock will decide about the price bands, that may be 5%, 10%, 20%.
2	Furthermore, at the opening and closing timings of the trading these price bands will double.
3	15 seconds time is to be given to the stock price to come back within the price band, if not a provision for 5 minutes trading pause would be applied.

Increase in Trading Hours: Indian market timings should be matched with those economies trading timings which are playing a significant role in reflected the price of Indian stock market. International news and information's are fluctuate the price of the stock market.

TABLE 1.4: Control over Volatility with Increase in Trading Hours

Step	Increase in Trading Hours
1	At present, trading hours at stock exchanges are between 9 a.m. and 3.30 p.m.
2	To make parallel Indian markets with those of the international market & to facilitate the incorporation of any economic information that flow in from other global markets, the market trading hours proposed to increase from 9 a.m. to 5 p.m.
3	The increase of market hours may help in successfully assimilating information and this helps Indian markets to become efficient in terms of better price discovery, the reduction in volatility and impact cost.
4	The timings of trading of exchange-traded equity derivatives market is should be matched with the underlying cash market.

5	Indian stock market presently is open for 5 days, i.e. Monday to Friday. Due to this the information is accumulated after the close of trading session on Friday is reflected in prices when markets reopen on Monday, this increases the volatility in the stock market. Thus, to curtail such impact, it is being considered to increase the trading days from 5 days to 6 days.

The Market Supervision System: Market supervision systems should be strong, which help in controlling the unfair trade practices in the stock market. Some of the surveillance systems and risk containment measures that have been put in place are briefly mentioned in Table 1.5:

TABLE 1.5: Measures for Supervision or Surveillance System and Risk Control

Step	Measures for Supervision or Surveillance System and Risk Control
1	Risk control measures in the form of the detailed margining system and linking of intra-day trading limits and exposure limits to capital adequacy.
2	The stock exchange should have periodic reporting system.
3	Construction of sovereign surveillance cells in the stock exchanges
4	Market manipulation might be control with inspection of intermediaries; deferral of trading in scrip's.
5	Inter Exchange Market Surveillance Group should be formed to take prompt, cooperative and valuable decision making on various issues like surveillance. It also develops co-ordination among stock exchanges.
6	Implement of On-line automated surveillance system for the proper watch on trading (Stock Watch System) at stock exchanges.
7	Intra-settlement and inter-settlement have to be implied by the brokers in addition to the overall limits specified by the SEBI.

MAJOR ISSUES FOR THE REGULATORY FRAMEWORK

The regulatory committee's had involved many issues in association with derivatives trading. Following are the some important regulatory issues, which is to be considered in the design of the regulatory framework.

- Is there a need of separate derivatives exchange, which is organized independently from an existing stock exchange?
- If separate derivatives exchange to be formed, how to delegate the authorities and responsibilities between SEBI and the derivatives exchange.
- How to check the derivative exchange for successfully accomplish its regulatory responsibility?
- What should be the criteria for permitting derivatives trading to an exchange by the SEBI?
- What should be the guidelines for clearing corporation, if derivatives trading involve a very high leverage?
- What should be the new rule and regulations or changes in existing regulations by the SEBI that helps in minimizing the risk in derivatives trading further?

CONCLUSION

The regulatory framework related to derivatives trading have already solved various existing problems of the derivatives trading and provides a healthy and strong market to the investors. But, still there are various issues on which regulatory authority should focus their attention. As in USA and various other developed countries derivatives instruments are traded and organized in a separate derivatives exchange, regulatory authority should review the prospectus of derivatives exchange in India as well. Proper attention should be focused on the clearing

mechanism of the derivatives trading, for which there is a requirement of proper reporting and recording system through online trading. The exchange should become hi-tech, which facilitate the online surveillance, trading position, real-time price and volume of the stocks. It helps in controlling the market manipulation and enhancing the market quality. There is a need to match the derivatives trading timings and standards should be matched with the international standards. A prompt investor's grievances redresal mechanism helps the stock market to create faith among the investors; hence it should also be covered in regulatory framework.

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