CHAPTER - 1

Introduction

1.1 Introduction of Derivatives

Indian Financial system has undergone a sweeping change mainly since the entry and widespread use of derivatives in the capital market. This is mainly because of new product revolutions and increasing experienced players entering the market. Derivatives market today has reached the same pace like developed nations like East Asia, North America and Europe.

Derivatives have mainly become fundamentally important because they act as a risk management tool. We can see that major institutional borrowers and highly sophisticated investors currently use derivatives. The aim of derivative is not only to increase the range of the financial product but also to foster new ways which can quantify and manage financial risk. The risks attached with traditional instruments can be teased apart with the use of derivatives independently and efficiently (Guruswamy, 2009; Ravichandran, 2008).

The Derivative Operations helps in insuring the investors against the market risks which can be perceived in the financial market. There have a range of mechanisms offered by the derivative operations in the financial
market which improve the redistribution of risks. Although one can presume that the derivative options are safe, still it has got enough risks which would be very difficult remove by human beings. However as per (Pathak, 2011), derivatives can be used for hedging risks so that intensity of loss can be minimized upto certain level and accordingly risk of the price of an asset can be substantially reduced by derivative contracts.

The derivatives in no way can eliminate the risks attached with investments however it simply diverts to one person to another person who ready to take or the ones who are neutral to risks (Guruswamy, 2009). The use of derivatives instruments has been catching up among the financial institutions like banks in the past decade. Inclusion of banks in the trading process has not only led to adequacy in terms of capital but has also helped in various other ways included settlement and trading.

As per the SEBI, the equity derivatives segment is the most vibrant, active and dominant segment in the Indian securities market. The volumes of derivatives market have far exceeded that of cash segment that as at close of 2012-13 and the turnover in the derivatives market was 12.6 times of the latter. The cash turnover at stock exchanges stood at Rs 32.61 lakh crore in 2012-13 fiscal.(SEBI Annual Report, 2001-2013).
The data compiled by SEBI shows that as per the Derivatives trading is concerned, the NSE is still continuously standing as number one position in India. The Derivatives turnover on the NSE increased marginally to Rs 315 lakh crore while the number of contracts traded on the exchange declined 6.1 per cent to 113 crore in 2012-13. (SEBI Annual Report, 2001-2013).

As per the SEBI report, the product formation in derivatives market has undergone dramatic change since 2006-07 when single stock futures was the most traded product in India and In 2012-13, index options comprised the largest share (77 per cent) in turnover, while share of single stock futures has decreased substantially to 10.9 per cent.

The growth in the derivatives market can be attributed to investors who initially took the risk. The main ingredients in growth and development of derivatives are lower funding cost, impact of globalization, search for higher yields due to diverse and ever changing financial needs of the investors, need for hedging of current and future risks (Guruswamy, 2009; Ravichandran, 2008).

There have been a number of cases in the history wherein derivatives operations have posed dangers to the financial system. Most of these cases can be due to lack of transparency and weak internal controls (Guruswamy, 2009; Ravichandran, 2008). If proper regulation is not present in the system, the risks can be misused as well. It has been
reported that the scams in the past in the derivatives market were due to evasion of investment guidelines, concealing of risks from principals, evasion of taxes and circumvention of regulations (Guruswamy, 2009; Ravichandran, 2008).

1.1.1 Concepts and the Definition of Derivatives.

The word Derivative means “deriving something from something else” (Vashishtha and Kumar, 2010). The underlying asset could be a commodity or a financial asset and the value of this asset is dependent on many things. As per financial derivatives are concerned, we can say that it is very complex products and it doesn’t have any independent value itself of its own. The value of the derivatives products normally derives from the changes in the other derivatives products value normally known as the Underlying which could be anything including share price, interest rate, snow fall and commodity.

The derivatives value changes the moment the underlying’s value change, and therefore, without the underlying the derivative doesn’t hold any changes. Derivatives are similar to insurance policies in the sense that they protect the investors against various financial risks.

As per the Securities Contract Regulation Act 1996, Financial Derivatives are defined as “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”

Derivative products emerged in the markets several years ago, and acting as a hedge against price variations of the various products. Number of derivatives products was already existed in the market for many centuries; however, serious trading in derivatives only came into existence post 1970s.

1.1.2 Classification of Derivatives.

Commodity derivatives include cotton and pepper etc. and financial derivatives includes shares, and foreign exchange is the main type derives existed in the world. Financial derivatives are further divided into eight sub-categories i.e. futures, swaps, forwards, puts, calls, swap options, and index-linked derivatives (Pathak, 2011).

There are different categories of derivatives that are available to investors and traders which are described below in detail (Kapadia, 2006; Ravichandran, 2008; Gurusamy, 2011) (See Chart 1.1.2):
Chart 1.1.2: Classification of Derivatives

Derivatives

Commodity

Financial

BasicInstrument

ComplexInstruments

Over the CounterDerivatives

Exchange-Traded

Exotic, Swaptions LEAPS,

Forward

Swaps

Options

Futures

Source: Compiled by Researcher
Over the Counter derivatives.

Unlike the developed nations where financial markets epitomized complex and unregulated financial innovations which led to the growth of the market in the last two decades but the scenario is completely different in India. In India the regulatory markets have grown within a regulatory frame. The OTC market in India has got tremendous growth in India in the past and it still continuing without facing any difficulties. The main reason for the growth of the OTC markets its beauty of the customization as per the customer’s needs. The main drawback of the OTC derivatives is the default risks of the counter parties.

In Indian financial market, dealing in the OTC derivatives is generally very strict and as per RBI, one of the counter parties of the OTC Derivative contract must be RBI controlled entity. The regulations are generally controlled by RBI (Reserve Bank of India) of Forwards Markets Commission (Gopinath, 2010).

There are different types of OTC derivatives which have been discussed below in detail.
**Forward Based Derivatives:**

**(A) Forward Contracts:**

Forward contracts like Options and future contracts are used to control and hedge risks and the forward price is the good estimation of prices of commodities in future.

The Characteristics of Forward Contracts (Gurusamy, 2009) is that there are different markets for different underlying, like; agricultural commodities and physical commodities and it can be customized. Since there is no standard negotiation, the negotiations in terms of; size of contract, delivery location and date and credit terms are possible. There are a lot of risks attached with forward contracts mainly because of the credit exposure. Therefore usually financial institutions, institutional investors, corporations and government agencies participate in forward contracts.

**(B) Swaps:**

As per Gurusamy, 2009, Swaps can be defined as “The swap is another sort of derivatives in which the counter parties exchange cash flows each other whether in a fixed rate or floating rate (These rates are called Legs). To calculate the cash flows, they fix a notional amount and calculate the rate accordingly and the same notional amount will not exchange at the end of the contract. Swap transactions can be conducted on phone when
both the parties have agreed. Banks and financial institutions generally carry out swaps.

There are many benefits attached with Swaps which includes helps in off-balance sheet transactions, the cost of transactions is lower in comparison to forward contracts, the difficulties with respect to market access is lowered in case of swaps, there is no initial exchange of principle amount, hedging interest rates and exchange rate risks, and also arbitraging market imperfections.

Characteristics of Swaps:

a) Like forward contracts, swaps too are bilateral contracts between institutional participants. The agreements are generally formulated through negotiations which in turn give rise to credit exposures.

b) Also they help in meeting the objectives of risk management for the participating parties.

c) There are many tools and methods under swaps which can be used to hedge away the risks.

d) The risks in swaps are comparatively lesser in comparison to forward contracts in the sense that the cash flow is fixed in this case. Also they can be calculated for each settlement date by multiplying the quantity of underlying principle.
Types of Swaps (Gurusamy, 2009):

i. **Interest Rate Swaps:** In case of interest rate swaps, the parties agrees to exchange cash flows whether it is fixed rate or floating rate in exchange of variable rate interest payments. There are two situations wherein one of the participants would be benefitted. Fixed rate party would benefit if interest rate rises or price of debt instrument falls, conversely, the floating rate party would benefit when interest rate is higher and cash flows are declining.

ii. **Currency Swaps:** under the currency swaps, parties hereto exchange different currencies in a specified predetermined exchange rates.

**Exchange Traded Derivatives:**

The exchange traded derivatives has a specific format and are based on standardized terms and conditions. The terms and conditions like delivery of underlying asset, size of the contract as well as the contract size will be decided in advance. The prices of the contracts are determined on the negotiations between the buyer and the seller. In India there are mainly two exchanges which is BSE and NSE.

There are different types of Exchange Traded Derivatives which have been discussed below in detail.
(A) Future Contracts:

In India, the futures trading in stock exchanges especially in BSE and NSE and it is a standardized contracts and it cannot customized as per the customer’s needs. Forward based contract is quite similar to futures contracts in terms of basic structure. However, there are still some features which may be distinguishing which are highlighted below:

The characteristics of Futures Contracts are (Gurusamy, 2009):

a) The futures contracts can be traded easily in comparison to other derivatives. General public, like retail speculators, who do not have the capacity to transact forwards and swaps generally easily transact futures contracts. There are various types of futures contracts which includes, Currency, Foreign exchange, stock Index, Commodity and Interest rate futures.

b) The terms and conditions in futures contracts are standardized. The contract in case of futures contracts specifies everything to the participating parties like; the quantity, and quality of underlying, time and place of delivery, and the method of payment. The only variable which is left to be determined is the price.

c) As the system is standardized in this case, contractual obligations under futures contracts are entered into directly with the exchange clearing house, and are generally satisfied through offset the cancellation of an existing futures position through the acquisition of an
equal but opposite position that leaves clearing house the zero net exposure.

**(B) Option Based Derivatives:**

Option based contracts are contracts which gives owner the right to buy and sell the contracts without any obligation. It is the responsibility of the writer to sell all the contracts at terms and conditions to the appropriate party and for taking the risks, the option writer gets some amount as premium. In case, if the holder does not exercise the option, then the option expires. However when the options expires the money spent on option is lost and accordingly the buyer of the option will lose option premium which was given to the writer of the option.

Characteristics of Option Based are listed below (Gurusamy, 2009):

a) The owner of the options don’t have any obligation to perform the contract till the contract matures. However, the buyer needs to know about the time of expiry of contract or else it will expire.

b) Options can be traded both through the exchange and through counter trading.

c) The buyer of option assumes long position while the seller assumes short position.

d) The premiums of the options are payable on the option contract.
e) In terms of maturity of the option, they have their different dates of maturity. The American option can be exercised any time during the tenure of option period and European option can be exercised only on maturity date of the contract.

**Types of Options:** There are two types of options. One is call option and another is put option. Call option gives the right to buy the asset whereas Put option gives the right to sell the underlying assets. If the exercise price higher at the time of expiry, then call option holder will make profit.

1.1.3 Growth of Derivatives Operations in the Global Market

1.1.3.1 Genesis and Growth of Derivatives Operation

During the time when Greeks and Romans used to rule the world, Roman emperors indulged in forward contracts to eliminate the risks attached with the change in the prices of the food grains before the harvest. Therefore, one can conclude that Derivatives and forward contracts have existed in the market from a very long time (Pathak, 2011; Yadav *et al*, 2009).

Going back into the history of derivatives, the commodity exchange started in Japan in 17th Century and in USA in the middle of 18th centuries. It was in the Chicago in USA, the first formal Exchange has started on or about 1848 in the name of CBOT (Chicago Board Of Trade).
Actual business in CBOT was initiated in 1860s and the first derivative contracts were termed futures contracts in year 1865. A spin off of CBOT, Chicago Mercantile Exchange (CME) was formed in 1919. Among the first financial futures was currency futures which were realized in US in 1972 were traded on the International Monetary Market (IMM)\(^1\). The various currency futures which were traded in IMM including Pound, Dollar and Yen.

Options are generally popular with speculators, Tulips were symbol of affluence and their popularity led to increase in their prices in the seventeenth century. The speculators had invested a large amount of money on the Tulip bulbs. Later some of them even incurred huge amount of loss when the craze collapsed in year 1637 (Pathak 2011; Yadav et al, 2009).

Russel Sage invented Puts and Calls in 18\(^{th}\) centuries and accordingly the Dealers in Puts and Calls came into existence early 1900s whose main aim was to bring buyers and sellers together. The popularity of Options grew in year 1973 onwards, because of Nobel Prize winning formula of Black-Scholes by Black, Merton and Scholes. The purpose of developing this model was to assess the fair price of option.

During late 1980s and 1990s, the derivatives market especially futures and options developed tremendously. The collapse of Bretton Woods

\(^1\)IMM (International Monetary Market) is a part of CME (Chicago Mercantile Exchange)
systems are the main reason for the said development. The largest financial exchanges in the world are CME and CBOT and they offer various types of options and futures for different needs of investors. If we examine the present day scenario, we can see that The Dow Jones, Nasdaq 100, S&P 500 and Nikkei are the exchanges where the high level trading takes place. (Pathak 2011; Yadav et al, 2009). The equity derivatives market was introduced in India in the year 2000 after a lot of deliberations and discussions. Since its inception, India has experienced a lot of activity in derivative trading. The market has developed very rapidly and volume in trading has increased tremendously. As far as the figures in 2011 are concerned, we can see that tremendous growth in the trading of derivatives and turnover has increased to Rs. 4356754.53. Even the total business in equity derivatives has reached more than 20 percent. Table 1.1.3.1 summarizes that the number of derivative contracts and turnover since its inception.
**Table 1.1.3.1: Number of Derivative Contracts and its growth.**

<table>
<thead>
<tr>
<th>Year</th>
<th>NSE</th>
<th>BSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity of contracts</td>
<td>Total Sales</td>
</tr>
<tr>
<td>2000-01</td>
<td>90,580</td>
<td>23.65</td>
</tr>
<tr>
<td>2001-02</td>
<td>4,196,873</td>
<td>1,019.26</td>
</tr>
<tr>
<td>2002-03</td>
<td>46,768,909</td>
<td>4,398.62</td>
</tr>
<tr>
<td>2003-04</td>
<td>56,875,995</td>
<td>21,304.08</td>
</tr>
<tr>
<td>2004-05</td>
<td>77,017,185</td>
<td>25,469.82</td>
</tr>
<tr>
<td>2005-06</td>
<td>160,619,271</td>
<td>48,241.74</td>
</tr>
<tr>
<td>2006-07</td>
<td>216,883,573</td>
<td>73,562.42</td>
</tr>
<tr>
<td>2007-08</td>
<td>425,013,200</td>
<td>130,904.78</td>
</tr>
<tr>
<td>2008-09</td>
<td>657,390,497</td>
<td>107,904.82</td>
</tr>
<tr>
<td>2009-10</td>
<td>679,293,922</td>
<td>176,636.65</td>
</tr>
<tr>
<td>2010-11</td>
<td>103,421,126</td>
<td>292,482.21</td>
</tr>
<tr>
<td>2011-12</td>
<td>120,504,564</td>
<td>313,417.32</td>
</tr>
<tr>
<td>2012-13</td>
<td>113,14,67,418</td>
<td>315,330.04</td>
</tr>
</tbody>
</table>

*Source: NSE, BSE Reports 2012-13*
1.1.4 Introduction to laws relating to the protection of retail investors in India

There are several laws relating to retail investors. In order to make Indian Capital Market efficient and healthy, several means of legislative measures have been taken even before the independence.

There are three main legislative bodies includes SEBI, RBI and DEA which govern the Indian Capital Market. Some of the laws and Acts which came into existence are explained below.

The capital issues (control) Act of 1947 is the first Act which came into existence after the Independence of India and the said Act “required consent of Government for companies to raise capital, whether from its own shareholders through rights, issues from the public.” It is believed that the liberalization in the financial market would lead to better economic growth. Accordingly, the government has lost its control relating to pricing of the shares due to the policy statement made on the 24th July, 1991. However, in year 1992 the Act was repealed to allow the companies to directly approach the market in compliance with certain prescribed guidelines related to disclosures and investor protection.

After that, the Companies Act of 1956 came into existence which was passed by Indian Parliament so that the government can control the
companies in various ways includes formation and dissolution of the various companies. However the provisions and rights do not redress the grievances of the individual retail investor. The Act also does not cover the rate of return of investment and getting the back the capital which has once been invested. In the same year, to protect the interest of retail investors another Act named Securities Contracts (regulation) Act was passed. The main intention of the Act was to restrict unfair trading and speculation in stock markets. This Act can be seen a move to protect the interest of retail investors (Sahoo, 2005).

Simultaneously, the global financial markets also started integrating with another. This movement of globalization brought complete reformation the market. Almost all the laws mainly passed with the purpose of protecting the interest of the retail investor, to regulate the Indian Capital Market and to promote the development of security market. SEBI directs the companies, stock exchanges and stock brokers to work as per their guidelines.

The importance of the SEBI Act was that if the companies and other intermediaries would disclose the information regarding the company’s financial status then the retail investor would be able to make sound decision thereby protecting them from any kind of fraud. However, still if the investors face any grievances regarding the amount and authenticity of the disclosed information, they can approach appropriate authorities for
the remedies. A number of amendments are under review with respect to the SEBI Act. Some of them are related to making capital market offences cognizable and increased monetary penalties so that regulator can take appropriate action whenever there is any kind of allegation or suspicion of manipulation in bank accounts and trading scripts (Gopalsamy, 2005, Sahoo, 2005).

The SEBI Act was followed by Securities Laws (Amendment) Act in year 1995, which was an extension to the SEBI Act. As per the said act, adjudicating officers were appointed who could adjudicate wide range of violations and also impose monetary penalties. The Securities Laws (Amendment) Act was followed by Depositories Act in year 1996 in order to establish depositaries in the securities. The main aim of this act was the simplify the transfer of shares without any hindrance. The terms of the said Act was later amended the year 1997 to facilitate the dematerialization of securities.

The Securities Laws (Amendment) Act was enacted in year 1999 also the second amendment was conducted in the same year. SEBI Act was again amended in year 2002 which further enhanced the powers of SEBI. The laws under the act became more stringent in terms of inspection, investigation and enforcement (Sahoo, 2005).
1.1.5 Issues related to Derivative Operations in Indian Capital Market

The Indian derivative market has got various issues time to time. Further strengthening of the system would require greater standardization of the OTC derivatives. However there are certain issues which need to be addressed. These issues are discussed below in detail (Gopinath, 2010):

a) Standardization of Contracts: It can be unhesitantly said that standardization of contracts are one of the pre-requisites for moving contracts for clearing. According to the paper published by Financial Services Authority (FSA), there are lot of benefits in standardizing the contracts.

b) Central Clearing system: Central Clearing Parties (CCP) model is very much important from the perspective of counterparty risk perspective. However complete agreement of the CCP model would make sure that the threat can be concentrated at one point and in terms of clearability of the contracts and arrangement of CCP is netting and margining. It is also imperative to bring CCPs under a globally harmonized set of standards. However, the next question which arises is that should CCPs also have access to central bank credit facilities. Given that there is less competition in the market and the incentive structure is also good, it may be worth it to have CCPs on a global platform.
c) **Bilateral Collateralization:** Bilateral collateralization is considered sub-optimal but efficient solution for central clearing. The aim for the regulatory body is to increase collateralization. The effectiveness of collateralization is dependent on the fact that the exposure is calculated frequently and also when exchange is dynamically collateral. However, how can one ensure this collateralization? Banks should therefore have their own models which should have prerequisites both for and against the bank.

d) **Requirements of higher capitals for non-cleared trades:** Banks face credit risks due to derivative operation transactions. The Basel requirements have put a capital charge when banks face such credit risks.

e) **Ready made Products and their Role:** The issue of ready-made products is more relevant for jurisdiction and regulatory authorities working in the financial sector of India. There is a major tradeoff between the retail investor and the risk assessment tools of the product. A lot of new products were introduced in the financial market in order to reduce the risks and also provide the investors with better hedging tools. However, system faced certain irregularities in terms of improper valuation, and mis-selling and therefore the propriety system reevaluated the practice of allowing such products in India.
1.2 Problem Statement

In the last few years a number of changes have been implemented in the market which has led to increase in gains and risks among the investors especially for the retail investor. The margining and collateral requirements pose challenges for retail investors, adding to the cost and complexity of derivatives trades.

However, it is necessary for the market to strike balance between development and regulation. This is so because too much of regulation can kill the market while no regulation could lead to manipulations at different levels. Therefore, push in the right direction can take Indian Capital Market to great heights. Indian Capital Market already has a regulatory framework therefore this study would attempt to find the answers to the following questions.

- Which are the entities which are responsible for this framework? How robust is this framework?
- How protected do the retail investors feel?
- What are some challenges which they feel in the derivatives market?
- Is the framework too restrictive?
• Is it too open to interpretation?

• Is it good enough to encourage retail investor’s to invest wisely in this highly volatile market?

• What activities have been done by various entities to educate the retail investors about their rights and responsibilities?

• How effective have these been?

1.3 Aim and objectives.

The main intention of this study is to gain in-depth knowledge to determine significance of investor’s protection relating to derivatives transactions. The following are the purpose of this study.

• Studying of the genesis and growth of the Derivatives Operations in the Indian Derivatives Market.

• To understand the requirement and significance of investor’s protection relating to derivatives transactions.

• To assess the perception and worries of retail investors in the Indian derivatives market.

• To understand nature and grievances faced by retail investors in the derivatives market.
To assess perception of retail investors about the SEBI’s attitude towards Derivatives market players and to study the adequacy of measures for reviving investor’s confidence.

To assess the awareness and usefulness of investor education programmes for investor protection.

1.4 Research Questions.

- What are the growth of Derivatives Operations in the Indian Capital Market?
- What are the challenges faced by regulators, developers and investors in Derivatives Operations?
- What is the need and importance of investor’s protection relating to derivatives transactions?
- What are the perceptions and worries of retail investors in Indian Derivative Market?
- What are the measures that have been taken by SEBI in order to revive investor’s confidence?
1.5 Significance of study

The significance of the study is outlined below:

- Achievement of the objectives set for the study.
- To find out the validity of hypothesis.
- To identify the area requiring corrections so as to have proper regulatory system for investor protection of derivatives in place.

Present research deals with the basic and complex issues related to the derivatives operation in India. Since this is an empirical study, the results of the study would help in generalizing the perceptions of retail investors with respect to risks involved in the derivatives market. The findings of the research will add to the already existing academic data and will also help in the regulatory bodies on the regulatory framework in order to make investments in the market safe for the retail investors.

1.6 Limitations of the Study

- This topic is very dynamic since changes are taking place almost every day. However, this study is to make an attempt to take into account as much information as possible.
- The study shall be partly based on secondary sources of information and thus shall have the limitations associated with the secondary data.
• The study is conducted in a limited locale because of time and money constraints and the study of more extensive geographical area would be very valuable in future.

• Though the results of the study are indicative in nature, before generalizing the findings in micro level, a macro study is desirable.

1.7 Chapterization Plan

The collected information and data are presented in nine chapters. The details are given as below.

• **Introduction**: This chapter is proposed to define the background of the study and need for the research, and terminology used.

• **Review of Literature**: This chapter studies the existing literature on the topic of derivatives and investor protection. The first part of the chapter literature review explains global scenario and the second part covers Indian context and then identifies research gap and establishes the need for this study.

• **Research Methodology**: In this chapter the methodology undertaken for the present study is elaborated. Research type, research design, data type, data collection instrument, questionnaire type, sampling plan, data analysis plan, etc. are explained.
• **Growth of the Indian Derivatives Market:** This Chapter shall assess the growth of Indian Derivatives market for the period between 2005 and 2011.

• **Need for the investor Protection in Derivatives market:** Chapter 5 shall establish the need for the investor protection in Derivatives market.

• **Investor protection and education in Derivatives market and the role of the regulatory authorities:** This chapter shall examine the current regulatory framework and regulation. It will also study the efforts taken by various entities like SEBI, BSE and NSE has taken for protection and education to the investors in the derivatives Market.

• **Analysis and Findings:** This Chapter shall study and analyze the data collected from three hundred retail investors across Mumbai. Data gathered shall be analyzed using appropriate statistical tools and findings reported.

• **Conclusion:** This chapter shall conclude by the research findings.

• **Recommendations and Suggestions:** This Chapter is proposed to detail out the suggestions and recommendations.
1.8 Conclusion:

This chapter began by distinguishing between derivatives and type of derivatives currently operational in Indian and world market. It described different groups of derivative contracts. And this chapter also discusses the concepts, classification of derivatives, growth of derivatives operations, laws relating to protection of retail investors and the issues related to derivative operations in the Indian Capital Market.