CHAPTER - 5

NEED FOR THE INVESTOR PROTECTION IN DERIVATIVES MARKET

5.1 Introduction
Investment in the Indian derivatives market has its share of advantages and challenges which can cause fear in the mind of investor. This chapter focuses on the major advantages and challenges of investing in the Indian derivative market. Also it discusses the different types of risks an investor faces and how can one manage these risks.

5.2 Advantages and Challenges of Investing in Indian Derivatives Market
Despite the media coverage, derivatives can be regarded as the most misused and misunderstood term in the security market. This is mainly because there are many products and that are too complex in nature under the single umbrella. Also a huge set of investors believe that they lose their money when they invest in the derivatives market. As per the statistics nearly 500 countries across the globe reflected that they used derivative instruments to manage and hedge risk effectively (ISDA Derivatives Usage Survey, 2009). Therefore, it is clear that although
derivatives carry economic advantages, they also increase the risk in the financial sector for their role in financial characteristic and thus pose challenge for the investor. Both these perspectives have been overview in this section.

5.2.1 Advantages of Investing in Derivatives Market

1. Derivatives help in sharing and redistribution of risks as they hedge against specific exposure of a business by taking the risk to speculate the movement in the value of underlying assets without actually owning the asset.

2. Derivatives contribute to the flow of capital and also help in increasing the credit availability.

3. It has helped the Indian investor to participate even in the international financial market. This allows diversification in the portfolio and also reduces the risk to a great extent.

4. Derivatives protect the investors from the exposures to the external influences which cause change in the price fluctuations. By purchasing the derivative in advance at lower price one can protect themselves from increase in the prices of underlying asset (The Economic Times, 2012).
5.2.2 Challenges of Investing in Derivatives Market

1. Lack of transparency in the derivative market is one of the key challenges in the OTC derivative market. Since market participants are not aware of the overall market and potential risks leads to unwillingness in trade and reducing the market liquidity.

2. Some market operators feel that derivatives are used purely for speculation purpose which means that one party reduces its risks and the other takes on the risk associated with the underlying asset. Due to the speculative nature, parties speculate the value of the asset without the intention to buy the asset. This speculation and lack of transparency can lead to parties taking too much of risk which in turn can destabilize the financial market.

3. In addition to lack of transparency, another challenge of investing in derivative market is counterparty risk i.e. the parties under the contract will not satisfy the obligations of the other party. This would leave the counterparty without the derivatives contract and thus no longer receive payments under the contract (Cohen S., 1995; Investopedia, 2012).
5.3 Risks Faced by Retail Investors in Derivatives Market

The risks faced by investors and dealers involved in the Derivatives market can be broadly classified into Market, Credit, Operational and Legal. The risks are similar to the risks which banks and security firms generally face. However, the risk management system adopted in the derivatives market is better and highly sophisticated. Each of these risks has been explained below in detail:

5.3.1 Market Risk:

The fluctuation in the prices due to changes in the market conditions can be attributed as Market Risk. The dealer or the investor can manage risk by identifying the factors which indicated that the market prices may fluctuate. They need to identify the contributing factors and also understand the interaction between these components. Dealers also manage risks on the basis of net or residual exposure of the overall portfolio, which means that the dealer would design the overall portfolio in such a way that would substantially reduce the overall risk of the portfolio. Therefore, generally a very small amount of risk is left to be hedged (Hentschel, and Smith, 1995; Harrow and Turnbull, 2000).
Different Types of Market Risks are:

- **Absolute Price Risk**: Also known as Delta Risk, one is exposed to this type of risk when the value of one portfolio is dependent on the value or price of any underlying asset.

- **Convexity Risk**: This risk also known as Gamma Risk. The linearity in relationship is inversely proportional to the degree of risk one faces.

- **Volatility Risk**: This risk is also known as Vega Risk and this risk is mainly associated with Option Derivatives.

- **Time Decay Risk**: Also known as Theta Risk, this type of risk is generally associated with option derivatives and this type of risk arises due to passage of time.

- **Basis Risk**: Also known as Correlational Risk, it is mainly relate to difference in the price of portfolio or transaction.

- **Discount Rate**: This risk is also known as Rho Risk, and it arises when exposed to type of risk in transaction and portfolio. (Harrow and Turnbull, 2000).

Market risks can also be analyzed in terms of two basic types of derivatives; i.e. forward based or derivative based. In terms of forward based derivatives the changes in the prices of underlying asset are proportional to the value of the derivative. This type of risk is easier to identify and manage which further makes monitoring and hedging\(^2\) easier.

\(^2\)Hedge can be defined as a strategy of trading for offsetting potential loss that may incur due to foreign exchange and interest rate fluctuations.
On the contrast the prices of option based derivatives are not as stable
and vary with change in the underlying asset at a much higher rate
(Gurusamy, 2009). This reflects that the price sensitivity of Option based
derivatives is higher in comparison to Forward based risks.

Also the risks inherited in Option based derivatives are more complex as
the value of Option based derivatives is mainly based on number of facts
includes price, exercise price, expiration, Volatility and life of the option.

5.3.2 Credit Risk
The credit risk is mainly occurred due to the failure of payment by the
counter party of the contract. Dealers adopt a number of policies and
procedures in order to manage counter party credit risk. In order to ensure
that the credit risk is assessed the credit risk for each transaction is
monitored. Transaction enforceability is ensured with the help of
documentation provisions which help in mitigating credit risk.

5.3.2.1 Credit Risk of individual derivatives:

The credit risk is generally assessed on the basis of current exposure and
potential exposure (Gurusamy, 2009, Das 1995);

1. Current Exposure: The market value of derivatives is determined at
   any given point of time so that in case of termination of the contract,
   the remaining cash flows can be replaced with current prices.At the
time of the termination, the replacement costs may be negative or positive.

2. Potential Exposure: The potential exposure of the derivatives is determined with the use of simulations, options valuation models, or Monte Carlo Simulation. First the volatility of the underlying is determined, and then the effect of its movement on the value of derivatives transaction is determined and based on the analysis the potential exposure is determined. The potential exposure could be of two types, expected exposure and worst-case exposure.

5.3.2.2 Credit Risk of a Portfolio:

1. **Current Exposure:** In order to calculate the current replacement costs for a portfolio of transactions with a counter party. However, before the analysis it is also important to know whether netting applies and is enforceable. As per the rule, if the counter party defaults, “applications of close-out netting will result in all the outstanding transactions being terminated and marked to market then the net amount owned under the transactions would be the replacement cost for that counter party” (Gurusamy, 2009). If netting is applied the current credit exposure is equal to sum of both negative and positive mark-to-market values. However, in contrast, if netting does not apply then only value of positive transactions is applied to calculate the current exposure.
2. **Potential Exposure:** In comparison to current exposure, potential exposure is more difficult to calculate in case of credit risk of portfolio. One way of calculating the potential exposure is to add up all the transactions in the portfolio. However, it has been observed that using this method generally leads to overstatement potential exposure. This is because it does not consider offsetting exposures or transactions that have peak maximum potential exposure at different time. Therefore, analysts generally use portfolio level simulations that checks for portfolio effects, and provides accurate measures of expected and maximum potential exposures (Gurusamy, 2009, Das 1995);

### 5.3.3 Operational Risk:

According to Gurusamy, 2009, the operational risk can be normally occurred because of human errors, inappropriate control and systems and failure of the management. Typically, this type of situation is not only observed in derivatives market but also in securities and credit businesses. However, in case of derivatives market, the operational risks are more complex. Depending on the complexity of the derivatives, the main types of internal controls are as follows:

1. Independent risk management system which helps the senior management in validating the results and also utilization of limits.

2. Oversight of informed and involved senior management.
3. Policies and procedures which list out the approved activities and also establishes the limits and exceptions in each case should be documented.

4. Also, one can conduct internal audits in order to determine if one can adhere to firm’s policies and procedures.

5. Independent checks should be conducted throughout the transaction process i.e. from initial trade initiation to final payment.

6. A back office should be there in order to handle, confirmations, documents, payments and accounting.

5.3.4 Legal Risk:

According to Gurusamy 2009, legal risk may be normally occurred due to the contract which cannot enforced because of the risk of loss. The risks included in this category could be related to inadequate documentation, inappropriate capacity or authority of the counterparty, debatable legality and unable to enforce in the case of bankruptcy or insolvency. Financial institutions mostly face legal risks when they lend loans, however in case of derivative markets legal risks come in new forms. Initially, when the derivative market was initiated on the global platforms, the lawyers used to face a lot of issues ranging from, corporate, constitutional, tax, and regulatory however with the increase in awareness
rules and policies were developed and are applied before new transactions.

5.3.5 Settlement Risk:

There is a difference between settlement day and the day of trade. For example there is a difference of 5 days between trade day and settlement day in US Equity. In India there is a gap of 3 days. Due to this gap the investor faces settlement risk, i.e. one party could suffer a loss if the price moved in his favor and the counter party refuses to exchange on the settlement date.

As on the settlement day, if the delivery of security and payment is not synchronized, then the full value of security can be at risk. If netting provisions of master agreements are used then the settlement risk may be avoided up to certain level. Generally the reduction of risk is observed in case of same currency as payment netting does not address the cross currency settlement risk. Also it has been observed that in order to reduce the risk the principle amount are not exchanged on the maturity date.
5.4 Need for Investor Protection

It is essential for everyone to plan their finances properly. When investing in the securities market, the investors have to be very careful regarding the transactions of the securities. The main motive behind any sort of investments is to earn profits and also one can save the money he earned. Investing money in bank FDs, insurance policies, mutual funds and debentures is perceived to be safer in comparison to when investing in the stock market.

The question then arises what is the need of investor protection in India? There are number of reasons highlighted by Kothiya and Patel, (2012) which reflect the need of investor protection. These are:

1. There have been a number of scams in the security market, which creates a negative impact on the investors and may scare the investor from investing. Therefore, in order to boost the capital market and restore the confidence of investors who have been down with the news of repeated scams, regulatory bodies were established which could protect the rights of investors.

2. India can be touted as an “informationally weak market” and therefore in order to protect the interest of the investors regulatory bodies share information with the investors regarding the organizations which have shown fraudulent activities in the past.
3. The continuously softening interest rates and the economy that not performed as per the expectations have eroded the investment options for investors. The investing skills of the investors need to be enhanced so that they do not fall into the trap of the fraudulent counterparties. Apart from that, there are number of broking companies in an attempt to boosting broking revenue tout investing in derivatives as “getting rich quickly” measure. People thus use derivative to speculate instead of using them as a “risk reducing” instrument and lose their hard-earned money.

In many cases, the investors do not know to whom to turn to in case of any potential dispute. Many cases, the brokers and dealers will not reveal the potential risks to the clients. Instead, they will misguide the investors for making money from their clients. In these situations, appropriate rules, regulation and internal controls are required to protect the investors so that the dealers and agents shall follow proper sales practices.

Other important points to be considered here is regarding the misuse of clients’ money lying with the agents and brokers. In case, anything happens to the agents and brokers financially, the money of the client will not be allowed to attach by any authority and persons so that clients’ money would be very safe. It is very important that the broking firm must engage proper and qualified employees to provide exceptional services to
the clients and accordingly it can safeguard the market integrity and loss of money of the investors.

5.5 Conclusion
All over the world it is justified that, derivatives provide valuable set of tools which help in management of risks. The growth of derivatives market has increased over the time mainly because of its risk management nature. However, in this chapter we discussed about the various risks which investors’ faces when investing in derivatives market. Also for every risk there are several risk management tools which have also been discussed.