A STUDY ON EXPERIENCES AND PERCEPTIONS OF CAPITAL MARKET INVESTORS ON FINANCIAL DERIVATIVES

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By

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Certificate

This is to certify that the Minor Research Project entitled **"A study on experiences perceptions of capital market investors on financial derivatives"**(MRP(H)/13-14/ KLMG031/ UGC-SWRO DATED 15TH February-2014) is a bonafide work done by **Ms. ANN NAISY JACOB**, **Assistant Professor, Post-Graduate Department of Commerce, Baselius College, Kottayam.** Also the project is completed by duly adhering to the rules and regulations laid down by the *University Grant Commission*

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I **Ms. ANN NAISY JACOB**, hereby declare that the dissertation entitled **"A study on experiences perceptions of capital market investors on financial derivatives"** has been prepared by me and also declare that this is a bonafide record of research work done by me during the course of minor research project allotted to me by The University Grant Commission New Delhi and no part of this study has been submitted earlier or elsewhere for any similar purpose.

Kottayam

Date: **Ann Naisy Jacob**

Acknowledgement

I am very much delighted to present the Minor Research project work entitled A study on experiences perceptions of capital market investors on financial derivatives.

*I bom my head **God Almighty** for giving me the required strength and courage to complete this humble project. Without his grace nothing would have been possible.*

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CONTENTS

LIST OF TABLES

CHARTS

EXECUTIVE SUMMARY

The process of liberalization and deregulation of the financial market led to the integration of the world financial markets. The arrival of information technology facilitated the process of integration on an unprecedented scale. With the integration of financial markets and free mobility of capital, risks also multiplied and risk diversification came to occupy the center stage. This led to the evolution of risk hedging mechanisms, which are generally known as derivatives. Derivative is a product whose value is derived from the value of one or more basic variables called bases in a contractual manner. That is, the price of a derivative instrument is contingent on the value of its underlying asset. Underlying asset can be foreign exchange, equity shares, interest bearing financial assets, commodities or any other asset. Derivatives are very important financial instruments for risk management as they allow risks to be separated and more effectively managed. The world financial markets have undergone qualitative changes in the last three decades due to phenomenal growth of derivatives. An increasingly large number of organizations now consider derivatives to play significant role in play in implementing their financial policies.

A derivative security is a financial contract whose value is derived from the value of something else, such as a stock price, a commodity price, an exchange rate, an interest rate, or even an index of prices. The researcher describes some simple types of derivatives: forwards, futures, options and swaps. Derivatives may be traded for a variety of reasons. A derivative enables a trader to hedge some pre-existing risk by taking positions in derivatives markets that offset potential losses in the underlying or spot market. In India, most derivatives users describe themselves as hedgers and Indian laws generally require that derivatives be used for hedging purposes only. Another motive for derivatives trading is speculation (i.e. taking positions to profit from anticipated price movements). In practice, it may be difficult to distinguish whether a particular trade was for hedging or speculation and active markets require the participation of both hedgers and speculators. A third type of trader, called arbitrageurs, profit from discrepancies in the relationship of spot and derivatives prices, and thereby help to keep markets efficient. Jogani and Fernandez describe India's long history in arbitrage trading, with line operators and traders arbitraging prices between exchanges located in different cities, and between two exchanges in the same city. Their study of Indian equity derivatives markets in 2002 indicates that markets

were inefficient at that time. They argue that lack of knowledge; market frictions and regulatory impediments have led to low levels of capital employed in arbitrage trading in India. However, more recent evidence suggests that the efficiency of Indian equity derivatives markets may have improved. The researcher wanted to know the level of Perception and awareness about various investment methods in particularly Derivative Segments. With the opening up of the capital markets in a big way to Foreign Institutional Investors (FII's), Derivatives and mutual funds are becoming attractive avenues.

With the world embracing the derivatives trading on a large scale, the Indian market obviously cannot remain aloof, especially after liberalisation derivatives are among the forefront innovations in the financial markets and aim to increase return and reduce risk. They provide an outlet for investors to protect themselves from the vagaries of the financial markets. These instruments have been very popular with investors all over the world. Derivatives products serve the vitally important economic functions of price discovery and risk management. The transparency, which emerges from their trading mechanism, ensures the price discovery in the underlying market. Further, they serve as risk management tools by facilitating the trading of risks among the market participants. These products enable market participants to take the desired risks and jettison the

undesirable undertones. The past decade has witnessed the multiple growths in the volume of international trade and business due to the wave of globalization and liberalization all over the world. As a result, the demand for the international money and financial instruments increased significantly at the global level. In this respect, changes in the interest rates, exchange rates and stock market prices at the different financial markets have increased the financial risks to the corporate world. Adverse changes have even threatened the very survival of the business world. It is, therefore, to manage such risks; the new financial instruments have been developed in the financial markets, which are also popularly known as financial derivatives. The basic purpose of these instruments is to provide commitments to prices for future dates for giving protection against adverse movements in future prices, in order to reduce the extent of financial risks. Not only this, they also provide opportunities to earn profit for those persons who are ready to go for higher risks. In other words, these instruments, indeed, facilitate to transfer the risk from those who wish to avoid it to those who are willing to accept the same.

Today, the financial derivatives have become increasingly popular and most commonly used in the world of finance. This has grown with so phenomenal speed all over the world that now it is called as the derivatives revolution. In an estimate, the

present annual trading volume of derivative markets has crossed US $ 30,000 billion, representing more than 100 times gross domestic product of India20. Since 1991, due to liberalization of economic policy, the Indian economy has entered an era in which Indian companies cannot ignore global markets. Before the nineties, prices of many commodities, metals and other assets were controlled. Others, which were not controlled, were largely based on regulated prices of inputs. As such there was limited uncertainty, and hence, limited volatility of prices. But after 1991, starting the process of deregulation, prices of most commodities are decontrolled. It has also resulted in partly deregulating the exchange rates, removing the trade controls, reducing the interest rates, making major changes for the capital market entry of foreign institutional investors, introducing market based pricing of government securities, etc. All these measures have increased the volatility of prices of various goods and services in India to producers and consumers alike. Further, market determined exchange rates and interest rates also created volatility and instability in portfolio values and securities prices. Hence, hedging activities through various derivatives emerged to different risks.

Futures trading offer a risk-reduction mechanism to the farmers, producers, exporters, importers, investors, bankers, trader, etc. which are essential for any country. In the words of

Alan Greenspan, Chairman of the US Federal Reserve Board, "The array of derivative products that has been developed in recent years has enhanced economic efficiency. The economic function of these contracts ,is to allow risks that formerly had been combined to be unbundled and transferred to those most willing to assume and manage each risk components26." Development of futures markets in many countries has contributed significantly in terms of invisible earnings in the balance of payments, through the fees and other charges paid by the foreigners for using the markets. Further, economic progress of any country, today, much depends upon the service sector as on agriculture or industry. Services are now backbone of the economy of the future. India has already crossed the roads of revolution in industry and agriculture sector and has allowed the same now m services like financial futures. India has all the infrastructure facilities and potential exists for the whole spectrum of financial futures trading in like stock market indices, treasury bills, gilt-edged securities, foreign currencies, cost of living index, stock market index, etc. For all these reasons, there is a major potential for the growth of financial derivatives markets in India.

The primary objective of the study is to evaluate the perceptions and experiences of the stock market investors on derivatives. 200 sample investors from Kottayam District who

are regularly dealing with Geogit or JRG or Hedge Equities are selected for data collections. Capital market investors dealing with Geogit securities, JRG security Ltd and Hedge Equities are selected for conducting this study. Data collections done through structural questionnaire. Secondary data are collected from the websites of NSE, OTCEI etc. Primary data collected is analyzed by using statistical tools like chi-square analysis, percentages, likert scaling techniques, composite index etc. Secondary data related to derivative transactions are analyzed by using ratios, percentages, correlation and Analysis of variance.

The result of the study reveals that small investors are not considering derivatives as a tool for hedging risk. This shows the level of ignorance of the small investors about financial derivatives. The authorities of capital market, stock exchange and firms dealing in derivatives must try their level best to improve the level of knowledge of investors about derivative**.** Derivatives enable their users to separate, value and transfer market risks. Risks are securitised and thus gain fungibility, which, in turn, allows the unbundling and repackaging of market risks embodied in underlying assets. The use of derivatives, therefore, enhances the possibilities for active corporate risk management, which is likely to have an impact on macroeconomic and monetary policy issues.

Chapter I

Introduction

INTRODUCTION

The use of derivative instruments in corporate risk management has grown rapidly in recent years, caused partly by financial deregulation and partly by the success of the financial industry in designing a great variety of OTC and exchange-traded contracts. The use of derivatives, therefore, enhances the possibilities for active corporate risk management, which is likely to have an impact on macroeconomic and monetary policy issues**.**

Financial market is a mechanism, which allows people to trade money for securities or commodities such as old or other precious metals. Financial markets are affected by forces of supply and demand and allocate resources over time through a price mechanism such as the interest rate. Financial markets means organizations that facilitate the trade in financial products i.e., Stock Exchange facilitate the trade in stock, bonds and warrants. Financial markets facilitate the raising of capital, the transfer of risk in the derivatives markets and international trade in the foreign exchange markets.

The term ‘capital market’ refers to the institutional arrangements for facilitating the borrowing and lending of long-term funds. A capital market may be defined as an organized mechanism for effective and efficient transfer of money capital

or financial resources from the investing parties i.e., individuals or institutional savers to the entrepreneurs engaged in industry or commerce in the business either be in the private or public sectors of an economy. Capital markets which consist of Stock markets, which provide finance through the issuance of shares or common stock, and enable the subsequent trading of and Bond markets, which provide financing though issuance of bonds, and enable the subsequent trading thereof.

The rapid globalization of the business environment during the last decade has exposed many firms to exchange rate fluctuation. The increased exposure is forcing many corporations to manage effectively financial risks like foreign exchange risk, interest rate risk and other financial risks. The growing significance of corporate hedging has had its demand for innovative risk management mechanisms and revolutionary developments in the field of financial engineering. The support offered by financial derivatives in this respect is highly acknowledged by the firms.

The gradual liberalization of Indian economy has resulted in substantial inflow of foreign capital into India. Simultaneously dismantling of trade barriers has also facilitated the integration of domestic economy with world economy. With the globalization of trade and relatively free movement of financial assets, risk management through derivatives product

has become a necessity in India also, like in other developed and developing countries. Tremendous growth in derivative market can be attributed to a number of factors. They reallocate risk among financial market participants, help to make financial markets more complete, and provide valuable information to investors about economic fundamentals. Derivatives also provide an important function of efficient price discovery and make unbundling of risk easier.

The process of liberalization and deregulation of the financial market led to the integration of the world financial markets. The arrival of information technology facilitated the process of integration on an unprecedented scale. With the integration of financial markets and free mobility of capital, risks also multiplied and risk diversification came to occupy the center stage. This led to the evolution of risk hedging mechanisms, which are generally known as derivatives. Derivative is a product whose value is derived from the value of one or more basic variables called bases in a contractual manner. That is, the price of a derivative instrument is contingent on the value of its underlying asset. Underlying asset can be foreign exchange, equity shares, interest bearing financial assets, commodities or any other asset. Derivatives are very important financial instruments for risk management as they allow risks to be separated and more effectively managed.

Scope and Significance of the Study

Every business involves risks. For certain risks we have insurance, collateral etc. but there are certain risks arising out of exchange in the value of an asset or liability or the cash flow due to change in market conditions. To provide against such risk there are no insurance organization or collaterals. There are certain financial devices available in the market which help take care of such business risks or which help in reducing the impact of such risks. These devices are nothing but the financial derivatives, which precisely do the job of protecting one from the adverse effects if the movement in the various market variables. A derivative is mainly a mechanism for covering against risks.

The process of liberalization and deregulation of financial markets led to what is known as the integration of world financial markets. With the integration of financial markets and free mobility of capital resulted in increased risk. It will lead to the evolution of risk hedging mechanisms, which are generally known as derivatives. Derivatives can be used as very good tool for risk management and hedging if used properly. The advent of modern day derivative contracts can be attributed to the need for farmers to protect their produce from any decline in the price of their crops.

Derivatives provide investors with a tool to hedge their naked positions in the cash market. They also enable the unexpected movement in the market. Derivatives help you in managing your cash flows in a better fashion. Derivative trading by individuals is generally considered as speculative business. But derivatives, apart from speculation, provide investors with a multitude of uses namely hedging and speculation.

Review of Research and Developments in the subject.

India is one of the most successful developing countries in terms of a vibrant market for derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery.

Equity derivatives trading started in India June 2000, after regulatory process which stretched over more than four years. In July 2001, the equity spot market moved to rolling settlement. Thus, in 2000 and 2001, the Indian equity market reached the logical conclusion of the reforms program which began in 1994. It is important to learn about the behaviour of equity market as well as investors towards equity market in new regime. The figure seems that the total turnover on the F&O segment

increased by Rs.31,349,732 crore during 2011-12 as compared with Rs 2,365 crore during 2000-01. The average daily turnover during 2011-12 was Rs 125,903 crore from Rs 12 crore in 2000-01 which shows CAGR of 120.49% in terms of turnover and CAGR of 115.64% in terms of average daily turnover.

India's experience with launch of equity derivatives market has been extremely positive, by world standards. NSE is now one of the prominent exchanges amongst all emerging markets, in terms of equity derivatives turnover. There is an increasing sense that the derivatives market is playing a major role in shaping price discovery. However, reports on a few studies held at national level and outside the state of Kerala are available.

Bose (2006) studied the attitudes and perceptions of investors about equity derivatives. She found that Derivatives markets provide at least two very important benefits to the investors. One is that they facilitate risk shifting, which is also known as risk management or hedging or redistributing risk away from risk averse investors towards those more willing and able to bear risk. People and businesses who have exposure to risk can either hedge against that risk with a derivatives contract or transfer. She also found that many investors have given importance to the certain company related factors being taken into account by them for derivative trading. Factors like

Corporate actions including dividend, bonus, and results do affect derivative market and investors in general.

Bhaumik (2007) studied the perceptions of investors regarding merits and demerits of derivatives traded in Indian stock market. The study explored the preferences of various investors towards equity futures and options. Major findings reveal that investors prefer stock futures more than any other varieties of derivatives. All investors agree on the benefits of risk management offered by derivatives. At the same time they commonly agree on the impact of futures market on spot market. It was found that equity derivatives trading is more concentrated in the top 10 urban centres, when compared with the equity spot market.

Harish (2004) investigated the potential of derivatives in India by surveying more than 100 brokers and investors. He found that various factors are being considered by them while making investment into derivatives. Company related factors are perceived as most important factors affecting to derivative market. Many investors and brokers have clearly expressed their views on uses of derivatives. Mostly all considered derivative market as highly risky and volatile segment of capital market.

The question that arises is how investors judge perceive such derivative in light of its features, merits and demerits,

factors considered while investing into derivative investment is not well captured in earlier existing works. So, based on the above literature available, researcher has found major gap in the research with regard to investor's perceptions related to derivatives in the context of merits, demerits, features, factors affecting while investing into derivatives, and satisfaction level. So researcher has focused more on to fill this gap which is observed from existing literature.

Kaustia M (2011) in their experiments on anchoring effects in the long term future stock returns estimates of investment professionals and found that expertise indeed significantly attenuated behaviour biases. A test of classic anchoring effect applied to stock market return estimates revealed that the effect obtained with students was several times higher than with professionals. Their results suggested that financial market professional may not hold steady return expectations. They also found that the professionals were not conscious of the impact of historical returns on their expectations.

Chaubey D.S and Dimri R.P (2012) in their empirical investigation identified that investment perception and various factors which influence the investors in their selection of the investment avenues. They found that the behaviour of investors for designing effective investment policies which indicated that

investors' choice of their investment scheme is associated with the demographic factors like age, gender, marital status, occupation and income but it is not associated with their level of education, family size and annual savings. They concluded that physiological profiling is the most important aspect which needs to be taken care for various investment avenues.

*Seru A et al., (2013)*analyzed survival rates, the disposition effect and trading performance at the individual level using a large sample of individual investor records over a nine year period to determine whether and how investors learn from their trading experience. They found evidence of two types of learning that some investors become better at trading with experience, while others stopped trading after realizing that their ability was poor. Their results suggested that differences in the expected performance of investors may arise from different experience levels and if many inexperienced investors begin

trading around the same time their trades could lead to time varying market efficiency.

Objectives

The primary objective of the study is to evaluate the perceptions and experiences of the stock market investors on derivatives. Following are the subsidiary objectives :

1. To evaluate the profile of retail investors engaged in derivative trading
2. To understand the degree of knowledge and popularity of derivatives among capital market investors.
3. To understand the motivational factors behind derivatives trading.
4. To evaluate the perception of investors about the liquidity, return and risk of different types of derivatives.
5. To ascertain the association between preference towards derivatives and
   (i) Level of income/savings
   (ii) Education
   (iii) Experience in capital market investment
6. To identify the factors that influence the popularity of financial derivatives
7. To identify the role-played by the investment advisors/employees of securities trading firms in motivating or de motivating investors from dealing in derivatives instruments.

Methodology

Present study deals with primary data. Methodology aopted for the study has 3 phases.

Phase I: Understanding concepts of financial derivative

Phase II: Sample design

Capital market investors dealing with Geogit securities, JRG security Ltd and Hedge Equities are selected for conducting this study. 200 sample investors from Kottayam District who are regularly dealing with Geogit or JRG or Hedge Equities are selected for data collections through structural questionnaire. Secondary data are collected from the websites of NSE, OTCEI etc.

Phase III: Analysis the data

Primary data collected is analyzed by using statistical tools like chi-square analysis, percentages, likert scaling techniques, composite index etc.

Secondary data related to derivative transactions are analyzed by using ratios, percentages, correlation and Analysis of variance.

Chapter II

Theoretical Review of Financial Derivatives

THEORETICAL FRAMEWORK

A derivative is specific type of investment whose pay offs over time are derived from the performance of assets such as commodities, shares or bonds, interest rates, exchange rate or indices such as stock market index, consumer price index or an index of weather conditions. Derivatives are known as “deferred delivery or deferred payment instruments”. In a sense, they are similar to securities, which are backed by the original issuer of the underlying asset, or security. Derivatives are instruments whose value is based on or derived from, the price of securities, commodities, money or other external variables. Derivatives are product whose value are derived from one or more basic variables called bases. These bases can be underlying assets such as foreign currency, stock or commodity, bases or reference rate such as LIBOR or US Treasury rate etc. Derivative, thus have no value of their own but derive it from the asset that being death with under the derivative contract. Derivative means a forward, future, option or any other hybrid contract of predetermined fixed duration linked for the purpose of contract fulfillment to the value of a specified real or to an index of securities.

Definition

Derivatives or derivative securities are contracts which are written between two parties and whose value is derived from the value of underlying widely-held and easily marketable assets such as agricultural and other tangible physical commodities or currencies or short-term and long-term financial instruments or intangible things like commodities price index, equity price index or bond price index.

With securities laws (Second Amendment) Act, 1999 derivatives has been defined in securities contracts (Regulations) Act as:

a) 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.
b) A contract, which derives its value from the prices or index of prices, of underlying securities.

A Brief History of Derivatives

The first exchange for tr4ading derivatives appeared to be the Royal Exchange in London, which permitted forward contracting in 1637. The first ‘futures’ contracts are generally traced to the Yodoya rice market in Osaka, Japan around 1650. These are evidently standardized contracts, which made them much like today’s futures. The next major event and the most

significant as far as the history of US future markets, was the creation of the Chicago Board of Trade in 1848; Due to its prime location on Lake Michigan, Chicago was developing as a major centre for the storage, sale, and distribution of midWestern grain.

A group of Grain traders created the ‘to-arrive’ contract, which permitted farmers to lock in the price and deliver the grain later. These ‘to-arrive’ contracts proved useful as a device for hedging and speculating on price changes. These contracts were eventually standardized around 1865, and in 1925 the first futures clearing house was formed.

In the Mid 1800s, famed New York financier Russell Sage began creating synthetic loans using the principle of put-call purity. In 1922 the Federal Government made is first effort to regulate the futures market with Grain Futures Act. In 1936 options on futures were banned in the United States. In 1950s marked the era of two significant events in the futures markets. In 1955 the Supreme Court ruled in the case of corn Products Refining Company that profits from hedging are treated as ordinary income. This ruling stood until it was challenged by the 1988 ruling in the Arkans as Best case. The Best-decision denied the deductibility of capital losses against-ordinary income and effectively gave hedging a tax disadvantage. Fortunately, this interpretation was overturned in 1993.

In 1972 the Chicago Mercantile Exchange, responding to the now freely floating international currencies, created the International Money Market, which allowed trading in currency futures. In 1975 the Chicago Board of Trade (CBOT) created the first interest rate futures contract, one based on Ginnie Mae (GNMA) Mortgages. While the contract met with initial success it eventually died.

In 1977 the CBOT created the T-Bond futures contract, which went on to be the highest volume contract. In 1982 the CME created the Eurodollar contact, which was now surpassed the T-bond contract to become the most activity traded of all futures contracts. In 1982, the Kans as City Board of Trade launched the first stock index futures a contract on the Value Line Index.

1973 marked the creation of both the Chicago Board Options Exchange and the publication of perhaps the most famous formula in finance, the option pricing model of Fisher Black and Myson Scholes. The Black-Scholes model, as it came to be known set up a mathematical framework that formed the basis for an explosive revolution in the use of derivatives. In 1983 the Chicago Board Options Exchange decided to create an option on an index of stock.

The 1980s marked the beginning of the sea of swaps and other over-the-counter derivatives. In 1994 the derivatives world was hit with a series of large losses on derivatives trading announced by some well known and highly experienced firms.

Derivatives have probably existed ever since people have bee trading with one another. Forward contracting dates back at least to the twelfth century and may well have been around before then. However the development and growth of derivative products has been one of the most extraordinary things to happen in the financial market place. In 1972, the Breton Woods agreement the post war part that instituted a fixed exchange rate regime to the world's major nations, effectively collapsed, when the US suspended the dollar convertibility into the gold. This resulted in exchange rate and interest rate volatility across the globe.

Benefits of Derivatives

Financial derivatives provide a low cost, effective method for end users to hedge and manage their exposures to interest rates. Commodity prices, or exchange rates. As such derivatives offer many advantages to various categories of people as outlined below:

1. Financial derivatives by reducing uncertainties make it possible for corporations to initiate productive activities that might not otherwise be perceived.
2. Derivatives used as a hedge can improve the management of cash flows at the individual form level.
3. Corporation, governmental entitles and financial institution also benefit from derivatives through lower funding costs and more diversified funding sources. Currency and interest rate derivatives provide the ability to borrow in the cheapest capital market, domestic or foreign, without regard to the currency in which the debt is denominated or the form in which interest is paid.
4. Derivatives allow corporations and institutional investors to more effectively manage their portfolios of assets and liabilities.
5. The foreign institutional investors will be pleased with the trading system moving closer to the international methods such as derivatives.
6. It is expected that arbitrage transaction between the index futures market and cash market for equities is likely to have a beneficial effect on the functioning of the cash market in terms of price discovery, broadening of liquidity and overall efficiency.

7. Derivatives help mutual funds and other financial institutions in their investment strategy for strategic purposes of controlling risk or restricting portfolios.
8. For participants in the derivatives market, there are various permutation and combinations of call and put options, with a fuller understanding, an investor will appreciate that alternatives available to him are plenty.

Derivatives play a very important role in the price discovery process and in completing the market. Their role in risk management for institutional investors and mutual funds managers needs hardly be overemphasized. It is important that all users of derivatives understand how their contracts are structured the unique price and risk characteristics of those instruments and how they will perform under stressful and volatile conditions. With only a marginal investment, one can take large positions in the market.

Types of derivatives

Derivatives contracts can be classified as follows:

1. Economic Derivatives
2. Energy Derivatives
3. Freight Derivatives
4. Weather Derivatives
5. Credit Derivatives

6. Commodities Derivatives
7. Financial Derivatives

1. Economic Derivatives:

Economic derivatives that pay off according to economic report as measured and reported by national statistical agencies. Economic derivatives are those derivatives which value is derived on the basis of economic report supplied by authorized agencies.

2. Energy Derivatives:

Energy derivatives that pay off according to a wide variety of indexed energy prices. Usually classified as either physical or financial, where physical means the contract includes actual delivery of the underlying energy commodity (oil, gas, power etc.)

Applications

There are 3 principle applications for the energy derivative markets.

1. Risk Management (Hedging)
2. Speculation (Trading)
3. Investment Portfolio Diversification

3. Freight Derivative:

A freight derivative is a financial instrument for trading in future levels of freight rates, primarily for dry bulk carriers and tankers. Such instruments include exchange traded futures contracts and options on futures contracts. Over-the-counter freight contracts like FFAs (Forward Freight Agreements) swaps and swaptions.

4. Weather Derivative:

Weather derivatives are financial instruments that can be used by organizations or individuals as part of a risk management strategy to reduce risk associated with adverse or unexpected weather conditions the difference from other derivatives is that the underlying asset (rain, temperature, snow etc.) has no direct value to price the weather derivative. Farmers can use weather derivatives to hedge against poor harvest caused by drought or frost. Theme parks may want to insure against rainy weekends during peak summer seasons, and gas and power companies may use heating degree days (HOD) or cooling degree days (CDD) contracts to smooth earnings.

5. Credit Derivative:

Credit derivative is a contract or derivative to transfer the risk of the total return on a credit asset falling below an agreed level, without transfer of the underlying asset. Early forms of

credit derivative were financial guarantees. Some common forms of credit derivatives are credit default swap, total return swap and credit linked note. An event defined within the credit derivatives contract, that happens in respect of the reference entity. It is usually defined in the Master Agreement of a credit derivatives contract. The three events are Bankruptcy, Failure to pay, restructuring. Credit derivatives are designed to allow the independent trading/hedging of credit risk. It is also possible to transfer and/or transform risk through securitisation. Securitisation is a group of techniques used for transforming illiquid sources of cash flow into securities. Illiquid sources if cash flow may include Mortgages, Credit Card Accounts, car loans, Consumer loans, Corporate Bank loans etc.

6. Commodities Derivatives:

Commodities market, allow a person to acquire or sell physical stocks of minerals, grains etc. A commodity is a raw material such as grain, coffee, metal or oil and is trade on a commodity market. As commodity prices fluctuate widely commodity exchange assist in enabling producers and users of the commodity to hedge the price risk with outside speculators and investors. They have served the important function of setting prices for commodities, and have offered a means for those who produce a commodity to trade it for other sorts of

goods. Different types o commodity derivatives are available in the market. They are discussed as follows.

1) Commodity futures
2) Commodity options

1) Commodity futures

Commodity futures were once based exclusively upon bulk commodities, known as physical. Recently, however, the rising demand for ways to manage risks has led to trading of non-physical contracts as well.

2) Commodity options

An option is a right to buy or sell a commodity on a certain date in the future at an agreed price, but without the obligation to do so. The buyer and seller of the option agree on the premium to be paid. This premium is separate from the price of goods and is payable whether or not the buyer exercise the options. The payment for the right to buy a commodity, rather than a contract to buy a commodity is a standard rated supply of services. If the option is exercised there will be a separate supply of the commodity itself.

The characteristics of commodities

Commodities are physical goods, but not all physical goods are commodities. Commodities have certain characteristics that make it feasible to trade them in markets.

- They can be stored for long periods, or in some cases for unlimited periods.
- Their value depends heavily on measurable physical attributes and on the physical location of the commodities.
- Commodities with the same physical attributes and the same physical location are fungible.

Organized commodity market in India

i. National Commodity & Derivatives Exchange Ltd (NCDEX)

NCDEX is an online commodity exchange based in India. Its head quarters located at Mumbai.

ii. Multi Commodity Exchange

7. Financial Derivatives:

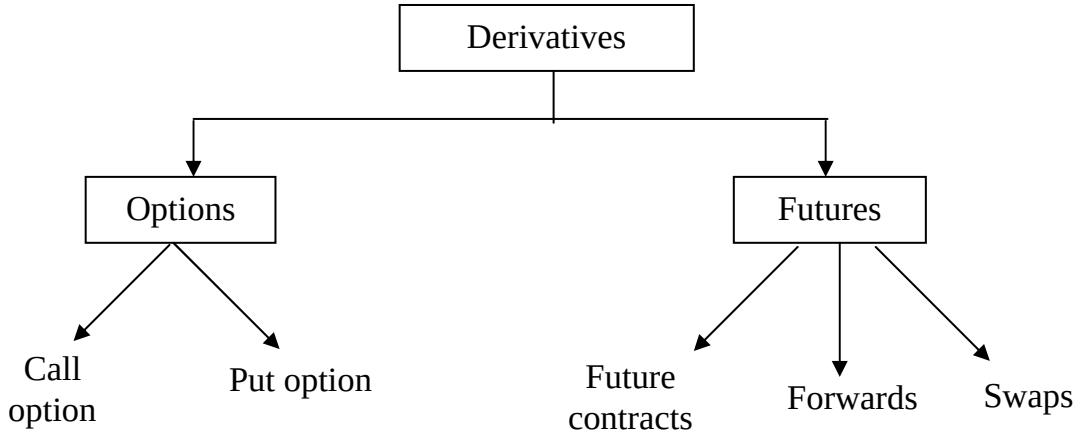
Financial derivative is instrument for hedging risk involved in buying, holding and selling various kinds of financial assets. Basically, financial derivatives are instruments for the management of risk arising from the uncertainty

prevailing in financial markets regarding asset prices. A financial derivative has an underlying asset, that is, a financial derivative is evolved to hedge risk involved in dealing in a particular financial asset such as a share or a foreign currency. A financial derivative may be described as a financial contract whose value is derived from the performance of financial assets, interest rates, currency exchange rates or stock market indices.

Financial derivative may be defined as a contract that specifies the rights and obligation between the issue of the derivative security and the holder thereof receive or deliver future cash flows (or exchange of assets) based on some future event. Financial derivatives are designed to provide protection to participants in financial markets against adverse movements in the prices of the underlying assets. They facilitate the exchange financial assets in future at prices determined in the present. It is also known as a derivative security.

Categories of Derivatives

Derivative can be divided into 2



The commonly used derivatives can be categorized into following three broad categories.

a) Options
b) Forwards/Futures
c) Swaps

a) Options

An option is an contract conveying the right but not the obligation to buy or sell specified financial instruments at a fixed price before or at a certain future date. In other words, options contract is a type of Derivatives contract which gives the buyer/holder f the contract the to buy/sell the underlying asset at

a predetermined price within or at end of a specified period. The buyer/holder of the option purchases the right from the seller/writer for a consideration, which is called the premium. The seller/writer of an option is obligated to settle the option as per the terms of the contract when the buyer/holder exercises his right. The underlying asset could include securities, an index of prices of securities etc.

Under Securities Contracts (Regulations) Act, 1956 options on securities has been defined as “option in securities” means contract for the purchase or sale of a right to buy or sell, or a right to buy and sell, securities in future, and includes a teji, a mandi, a teji mandi, a galli, a put, a call or a put and call in securities.

An option to buy is called call option and option to sell is put option.

Forward/futures

Forward contracts are commitments entered into by two parties to exchange a specific amount of money for a particular good or service at a specified future time. A forward contract may be described as an agreement to buy or sell an asset at predetermined price and at a specified future time. Thus, in a forward contract, the contract is initiated at one time but the

performance occurs at a subsequent time. A forward contract is settled at maturity.

A futures contract, like a forward contract, is an agreement between two parties to buy or sell an asset at a certain time in the future for a certain price. While the details of a forward contract are negotiated between the parties to the contract, futures contracts are normally traded on an organized or regulated exchange where trades used to assembled periodically on the floor of the exchange to buy and sell futures contract generally by open outcry. Futures contracts are standardized agreements to exchange specific types of goods, in specific amounts and at specific future delivery or maturity dates.

Futures are traded only on the organized and recognized exchanges where as forwards are trade off the stock exchanges and OTC markets. Futures are standardized instruments whereas forwards are special-purpose instruments designed to suit the specific needs of counter parties.

b) Swaps

A swap is the exchange of cash flows or a set of financial obligation between two parties over time. Swaps involve agreement between two parties for a specified period of time. In finance, a swap is a derivative, where two counter parties exchange one stream of cash flows against another stream.

These streams are called legs of the swap. The cash flows are calculated over a national principal amount. Swaps are often used to hedge certain risks, for instance interest rate risk. Another use is speculation.

Types of swaps:

1. Interest Rate Swaps
2. Currency Swaps
3. Equity Swaps
4. Total Return Swap
5. Foreign Exchange Swap
6. Cross Currency Swap

Functions of Derivatives

The primary function of the derivative instrument is not to borrow or lend funds but to transfer price risks associated with fluctuation in asset values. The derivatives provide three important economic functions:

(i) Risk management
(ii) Price discovery
(iii) Transactional efficiency

Global Derivatives Markets

Bretton Woods system collapse as the Chicago Mercantile Exchange (CME) launched the world's first successful exchange trade currency futures. In 1975 interest futures contracts were

launched by CBOT on GNMACDRs and T-bills on the CME. The exist crucial development in derivatives markets occurred in 1983 when the Philadelphia stock Exchange launched currency options. The next in line was currency swaps in 1981, folled by interest rate swap within a year. In fact these over-the-counter (OTC) products paved the way for the development of market parallel and complimentary to the exchange trade markets.

The development of these markets has enabled institutional investors, banks and corporate to manage risk more efficiency as also to speculate on them if they wish to. Instruments are now in existence that permit a treasurer to fix a budgeted rate, insurance against catastrophic rate changes, participate in beneficial movements etc. portfolio managers can now execute investments decisions without over going to the underlying cash markets. Assets and liabilities can be altered and synthesized cheaply, quickly and defiantly to express any view on interest or exchange rates, commodity prices or inflation. The derivative markets are now quite mature and have come to stay as could be seen from the following figures.

Indian Derivatives Markets

Indian derivatives market though has a history of more than a century is still in its nascent stage vis-à-vis global derivatives.

The first step towards development of derivatives market in India is the appointment of L.C Gupta Committee by SEBI to go into the question of derivatives trading and to suggest various policy and regulatory measures that need to be undertaken before such trading is formally allowed. We have today active derivative markets in the segments of stock and foreign currency while trading in commodities is in the process of stabilization. Stock market derivatives have indeed picked up momentum and the volumes under futures trading on individual stocks have reached global proportion. We have also well established OTC currency derivatives market in India are in a evolving phase.

India is said to have a long standing experience of using derivatives particularly in commodities markets. It indeed traces back to 1875 when the first commodity exchange was started in Bombay.

Structure of Derivative Markets in India

Derivative trading in India takes can place either on a separate and independent Derivative Exchange or on a separate segment of an existing stock exchange. Derivative Exchange/Segment function as a self-Regulatory Organisation (SRO) and SEBI acts as the oversight regulator. The clearing and settlement of all trades on the Derivative Exchange/Segment would have to be through a clearing Corporation/House, which

is independent in governance and membership from the Derivative Exchange/Segment.

Regulatory framework of Derivative Markets in India

Dr. L.C. Gupta Committee constituted by SEBI has laid down the regulatory framework for derivative trading in India. SEBI has also framed suggestive bye-law for Derivative Exchanges/Segments and their clearing corporation or House which lay's down the provisions for trading and settlement of derivative contracts. The Rules, Bye-law and Regulations of the Derivative segment of the Exchanges and their clearing Corporation/House have to be framed in line with the suggestive Bye-laws. SEBI has also laid the eligibility conditions for Derivative Exchange/Segment and its clearing corporation/ house provide a transparent trading environment, safety and integrity and provide facilities for redressal of investor grievances. Some of the important eligibility conditions are:

- Derivative trading to take place through an on-line screen based trading system.
- The Derivatives Exchange/Segment shall have on-line surveillance capability to monitor positions, prices and volumes on a real time basis so as to deter market manipulation.

- The Derivative Exchange/Segment should have arrangements for dissemination of information about trader, quantities and quotes on a real time basis through at least two information vending net works, which are easily accessible to investors across the country.
- The Derivative Exchange/Segment should have arbitration and investor grievances redressal mechanism operative from all the four areas/regions of the country.
- The Derivatives Exchange/Segment should have satisfactory system of monitoring investor complaints and preventing irregularities in trading.
- The Derivative Segment of the Exchange would have a separate investor protection fund.
- The clearing corporation/House shall perform full novation, ie, the clearing corporation/House shall interpose itself between both legs of every trade, becoming the legal counter party to both or alternatively should provide an unconditional guarantee for settlement of all trades.
- The clearing Corporation/House shall have the capacity to monitor the overall position of Members across both derivatives market and underlying securities market for those Members who are participating in both.
- The level of initial margin on Index Futures contracts shall be related to the risk of loss on the position. Te concept of

value-at-risk shall be used in calculating required level of initial margins. The initial margins should be large enough to cover the one-day loss that can be encountered on the position on 99% of days.

- The clearing Corporation/House shall establish facilities for electronic funds transfer (EFT) for swift movement of margin payments.
- In the event of a Member defaulting in meeting its liabilities, the clearing corporation/House shall transfer client positions and assets to another solved member or closeout all open positions.
- The clearing corporation/House should have capabilities to segregate initial margins deposited by clearing members for trades on their own account of his client. The clearing corporation/House shall hold the client's margin money in trust for the client purposes only and should not allow its diversion for any other purpose.
- The clearing corporation/House shall have a separate Trade Guarantee Fund for the trades executed on Derivative Exchange /Segment. Presently, SEBI has permitted Derivative Trading on the Derivative Segment of BSE and the F & O Segment of NSE.

Derivative contracts are permitted by SEBI

Derivative products have been introduced in a phased manner starting with index futures contracts in June 2000. Index Options and stock options were introduced in Jun 2001 and July 2001 followed by stock futures in November 2001. Sectional indices were permitted for derivative trading in December 2002. Interest rate Futures on a national bond and T-bill priced off ZCYC have been introduced in June 2003 and exchange trade interest rate futures on a national bond priced off a basket of Government securities were permitted for trading in January 2004.

Measures specified by the SEBI to protect the rights of Investors in Derivatives Market

The measures specified by SEBI include:

- Investor's money has to be kept separate at all levels and is permitted to be used only against the liability of the investor and is not available to the trading member or clearing member or even any other investor.
- The trading Member is required to provide every investor with a risk disclosure document, which will disclose the risks, associated with the derivative trading so that investors can take a conscious decision to trade in derivatives.

- Investor would get the contract note duly time stamped for receipt of the order and execution of the order. The order will be executed with the identity of the client and without client ID order will not be accepted by the system. The investor could also demand the trade confirmation slip with his ID in support of the contract note. This will protect him from the risk of price favor, if any, extended by the member.
- House/clearing corporation and in the event of default of the trading or clearing Member the amounts paid by the client towards the default of the member. However, in the event of a default of a member, losses suffered by the investor, if any, on settled/closed out position are compensated from the Investor Protection Fund, as per the rules byelaws and regulations of derivative segment of the exchanges.
- The Exchanges are required to set up arbitration and investor grievances redressal mechanism operative from all the four areas/regions of the country.

Chapter III

Analysis of Data

DATA ANALYSIS AND INTERPRETATION

Table 3.1

Educational Back Ground of Respondents

Sl. No.	Particulars	No.	%
1	SSLC	36	18
2	Pre Degree	24	12
3	Graduate	80	40
4	Post graduate	28	14
5	Professional degree	32	16
Total		**200**	**100**

Source: Primary data

The above table shows the education profile of the investors selected for the study. 40% of the investor selected for the study are graduates 14% are post graduates and another 16% have professional qualification. Hence 70% of the selected investors have bachelors' degree or post graduate degree.

Table 3.2

Occupational Classification of Respondents

Sl. No.	Particulars	No.	%
1	Business	52	26
2	Employee	44	22
3	Professional	32	16
4	Agriculturist	20	10
5	Others	52	26
Total		**200**	**100**

Source: Primary data

The above table shows the occupational profile of the investors selected for the study. Out of the 200 respondents 26% are engaged in business and 22% are employees. Professionals constitute 16% and balance includes agriculturists and others. It can be seen that there is a dominance of businessmen and others in this field.

Table 3.3

Monthly Income Classification

Sl. No.	Particulars	No.	%
1	Below 10,000	128	64
2	10,000 – 20,000	40	20
3	20,000 – 30,000	24	12
4	Above 30,000	8	4
Total		**200**	**100**

Source: Primary data

The survey results show that 64% of the traders have a monthly income of below 10,000. 20% traders belong to Rs.10, 000 to Rs.20, 000 category and 12% traders monthly income is between Rs.20, 000 – 30,000. Rest 4% people belong to high income group. It is interesting to note that majority of the traders belong to average income group.

Table 3.4

Investment avenues of Respondents

Sl. No.	Particulars	No.	%
1	Bank	116	58
2	Real estate	16	8
3	National saving scheme	64	32
4	Insurance	100	50
5	Stock market	200	100
6	Others	-	-

Source: Primary data

The above table shows various investment avenues of the investors selected for study. Most of the respondents have more than 2 avenues. 200 respondents having investment in capital market are selected for the study. 58% of the respondents have deposits with banks, 50% have investments with insurance companies and 32% have investments with National Savings Schemes.

Table 3.5

Stock Market Investment of Respondents

Sl. No.	Particulars	No.	%
1	Equity shares	152	76
2	Debentures	8	4
3	Mutual fund	72	36
4	Derivatives	148	74
5	Others	4	2

Source: Primary data

The survey results show that 76% of the stock market traders are invested in equity shares and 74% of the traders are invested in derivatives. 36% of the traders have investment in mutual fund. Only 4% of the traders are invested in debentures and 2% of the traders are invested in other stock market investments. A close observation of the data shows that capital market investors are not at all interested in fixed interest securities like debentures. It is also very interesting to note that a large majority of the investors in capital market prefer derivatives as an investment avenue.

Table 3.6

Stock Trading Experience of Respondent

Sl. No.	Particulars	No.	%
1	Less than 1 year	36	18
2	1 – 5 years	80	40
3	5 – 10 years	40	20
4	More than 10 years	44	22
Total		**200**	**100**

Source: Primary data

Table 3.6 shows the experience of respondents in capital market operations. It is found that 22% of the traders have the experience of the more than 10 years in stock trading while 20% of people have experience between 5 and 10 years. 40% of the respondents have experience from 1 to 5 years. Balance 18% respondents are new comers having experience less than 1 year. The average experience of the respondents is 5.54(5 years and 197days) years with a standard deviation of 1.37(1 year and 135 days) years.

Table 3.7

Motivational factors behind Derivative Trading

Sl. No.	Particulars	No.	%
1	Short term finance	32	24.32
2	Less Investment cost	16	16.23
3	Less risk	28	21.62
4	Chance to earn high return	60	45.95
5	Others	12	13.51
Total		**200**	**100**

Source: Primary data

The above table shows the motivational factors behind derivative trading of the investors. 45.95% of investors in derivative products are attracted by the chance to earn high return. 24.32% of investors prefer derivative products because it requires funds for a short period of time. Even though derivatives are risk-hedging instruments, only 21.62% of the selected respondents are motivated by this factor. It can be concluded that derivatives are considered by the investors as tool earn superior gain and not as a risk hedging mechanism.

Table 3.8

Trading in Financial Derivatives

Sl. No.	Particulars	No.	%
1	Futures	120	81
2	Options	116	78.38

Source: Primary data

Out of the 148 investors in derivatives 81% are investing in futures and 78.38% deals in options. It is very clear that more investors than options prefer futures. Some investors are investing in both futures as well as options.

Table 3.9

Opinion about effectiveness of derivatives in reducing risk

Sl. No.	Particulars	No.	%
1	Highly effective	24	16.23
2	Effective	88	59.46
3	Not effective	12	8.11
4	Highly ineffective	8	5.40
5	No opinion	16	10.80
Total		**148**	**100**

Source: Primary data

Table 3.9a

Value as per Likerts Scaling Technique

Sl.No.	Particulars	No.	Weights	Product
1	Highly effective	24	5	120
2	Effective	88	4	352
3	Not effective	12	3	36
4	Highly ineffective	8	2	16
5	No opinion	16	1	16
		148		**540**

Table 3.9 shows the opinion of respondents about the effectiveness of derivatives for reducing risk. Likerts scaling technique is adopted for identifying the general opinion of respondents. The completed value as per the scaling technique is 540, which lies in between 592 (148×4) and 444 (148×3). Hence the rating of the respondents ranges in between effective and not effective. The average value as per the scale is computed to be 3.64which is very closer to the value assigned to the rating effective. Hence we can conclude that derivatives are effective in reducing risk.

Table 3.10

Type of derivatives dealt in by the respondents

Sl. No.	Particulars	No.	%
1	Stock options	112	75.68
2	Stock futures	96	64.86
3	Index options	92	62.16
4	Index futures	96	64.86

Source: Primary data

Table 3.10 shows the types of derivative instruments dealt in by the respondents. As the table indicates 75.68% of investors in derivatives deals in stock options, 64.86% deal in stock futures. 62.16% deals in index options and 64.86% investors deals in index futures. Thus it can be concluded that stock option is the most popular derivative instrument. Most of the investors are dealing in both options and futures.

Table 3.11

Duration of Derivative Contracts

Sl. No.	Particulars	No.	%
1	1 month	100	67.57
2	2 months	16	10.81
3	3 months	16	10.81
4	Multiple	16	10.81
Total		**148**	**100**

Source: Primary data

Out of the 148 derivative traders 67.57% traders chose 1month contract for dealing in derivatives and 10.81% selected 2 months contract 10.81% of traders are dealing 3 month's contract and balance 10.81% of traders are dealing multiple of above months. Hence it can be concluded that large majority of derivative investors prefer the shortest duration investment.

Table 3.12

Frequency in derivative deals

Sl. No.	Particulars	No.	%
1	Daily	56	37.84
2	Weekly	52	35.14
3	Fortnightly	16	10.82
4	Monthly	24	16.20
Total		**148**	**100**

Source: Primary data

The above table shows details about the frequency of dealings in derivative instruments. Out of the 148 derivative investors 37.84% deal on daily basis, 35.14% of the investors deal on weekly basis.27.02% of the investors deal in fortnightly or monthly basis. Hence it is evident that majority of the investors are very active in the market.

Table 3.13

Perception about Liquidity of Derivatives

Sl. No.	Type of derivative product	Liquidity perception					No.
		5	4	3	2	1	
		Very high	*High*	*Average*	*Low*	*Very low*	
1	Stock options	24	60	20	8	4	112
2	Stock futures	20	40	28	8	-	96
3	Index options	20	44	24	4	-	92
4	Index futures	28	56	12	-	-	96

Source: Primary data

Table 3.13a

Likerts scaling

Sl. No.	Type of derivative product	Liquidity perception					Total
		5	4	3	2	1	
		Very high	*High*	*Average*	*Low*	*Very low*	
1	Stock options	120	240	60	16	4	440
2	Stock futures	120	160	84	16	-	380
3	Index options	120	176	72	8	-	376
4	Index futures	140	224	36	-	-	400

Source: Primary data

Table 3.13 shows the liquidity perception of respondents about different financial derivatives. The Likerts scaling technique is adopted for identifying the general opinion of respondents about the liquidity of various derivatives. The computed value of stock options as per the table is 440 which is nearer to the 448 (28 X 4). Hence the respondents rate a high liquidity for stock options. The computed value of stock futures is 380 which nearer to 384 (96 X 4). Here also the respondents rate high liquidity i.e., liquidity perceptions of stock futures are high. The computed value of index options as per table is 376, which is more than 368 (92 X 4). Hence it can be inferred that there is high liquidity for index options. Computed value of index futures as per the table is 400 which above 384 (96 X 4). Hence the rating of respondents is high i.e., liquidity perception of index futures is high. The above table shows that there is no much difference in the perception about the liquidity of different financial derivatives.

Table 3.14

Perception about Return on Derivatives

Sl. No.	Type of derivative product	Return perception					No.
		5	4	3	2	1	
		Very high	*High*	*Average*	*Low*	*Very low*	
1	Stock options	16	28	60	8	-	112
2	Stock futures	12	48	32	4	-	96
3	Index options	8	44	36	4	-	92
4	Index futures	8	56	24	8	-	96

Source: Primary data

Table 3.14a

Likerts scaling

Sl. No.	Type of derivative product	Perception about return					Total
		5	4	3	2	1	
		Very high	*High*	*Average*	*Low*	*Very low*	
1	Stock options	80	112	180	4	-	388
2	Stock futures	60	192	96	8	-	356
3	Index options	40	176	108	8	-	332
4	Index futures	40	224	72	16	-	352

Source: Primary data

Table 3.14 shows perception of return on derivatives of the respondents. The Likerts scaling technique is used for analyzing the opinion of respondents. The computed value in respect of stock options as per the table is 388, which lies between 448 and 336. Hence the rating of respondents ranges in between high and average. But the average value as per scale is computed to be 3.46, which is very closer to the value assigned to the rating average. Hence we can conclude that return of stock options is average. The value in respect of stock futures as per the table is 356, which is very close to 384. Hence we conclude that return from stock futures is high. The value of index options is 332. The average value as per the Likerts 5 point scale is 3.2. Hence we conclude that return from stock options is high.The computed value of index futures as per the table is 352 and the average score as per the 5 points scale is 3.6. Hence we conclude that return from index futures is high.

Table 3.15

Perception about Risk on Derivative

Sl. No.	Type of derivative product	Return perception					No.
		5	4	3	2	1	
		Very high	*High*	*Aver age*	*Low*	*Very low*	
1	Stock options	16	20	28	44	4	112
2	Stock futures	28	28	20	16	4	96
3	Index options	8	24	48	8	4	92
4	Index futures	20	44	16	8	8	96

Table 3.15a

Value as per Likerts scaling

Sl. No.	Type of derivative rate product	Risk perception					Total
		5	4	3	2	1	
		Very high	*High*	*Avera ge*	*Low*	*Very low*	
1	Stock options	80	80	84	88	4	336
2	Stock futures	140	112	60	32	4	348
3	Index options	40	96	124	16	4	300
4	Index futures	100	176	48	16	8	348

Source: Primary data

Table 3.15 shows perception of respondents about risk of derivative instruments. The Likert's scaling technique is used for quantifying the opinion about the risk associated with different derivative instruments. 76 out of 112respondents dealing with stock options believe that the risk is average or below. The computed value as per the scaling technique is 336 and the rating as per the 5-point scale is 3. Hence rating of respondents is average.56 out of 96 respondents dealing in stock futures believes that the risk is high or very high. Computed value as per the scaling technique is 348 and the rating as per the scale is 3.63. Hence we can conclude that the investors dealing in stock futures believe that the risk is high. 48 out 92 respondents feels that the risk associated with the index options is moderate. The computed value in this respect is opti 300, which is less than 276 (92 X 3). Hence the risk rating of respondents is average. Computed value as per the scaling technique in respect of the index future is 348. The score as per the scale is 3.6, which shows that the risk associated with the index futures is high.

Table 3.16

Monthly investment in futures

Sl. No.	Particulars	No
1	Below 1 lakh	60
2	1 lakh – 4 lakhs	40
3	4 lakhs – 7 lakhs	4
4	7 lakhs – 10 lakhs	12
5	Above 10 lakhs	4
Total		120

Source: Primary data

Table 3.16 shows monthly investment in futures. 100 respondents out of 120 have monthly investment up to 4 lakhs rupees. 60 out of 120 respondents (50%) have very limited investment.10% of the investors in futures are parking Rs.700000 to 1000000. The average investment in futures is Rs.246667 with a standard deviation of Rs. 283373.

Table 3.17

Monthly investment in options

Sl. No.	Particulars	No	%
1	Below 25,000	56	
2	25000 – 50000	24	
3	50,000 – 75,000	16	
4	75,000- 10,0000	8	
5	Above 10,0000	12	
Total		116	

Source: Primary data

Table 3.17 shows monthly investment of the respondents in options. 56 respondents out of 116 respondents (around50%) are having a monthly investment in options up to Rs.25, 000. About 20% of the investors in options have committed 50000 in this avenue.12 investors (10%) have a monthly investment above Rs.10, 0000. The average investment in options is calculated to be Rs.40086 with a standard deviation of Rs.29420. A simple observation of the above table reveals that majority of the investors are very small investors in options.

Table 3.18

Sl.No.	Particulars	Strongly agree	Agree	Agree to certain	Disagree	Strongly disagree	No opinion
a)	Dealings in derivatives helps to hedge risk	56	8	100	12	8	16
b)	Lack of knowledge may result in loss	132	16	28	12	12	-
c)	Majority of the investors dealing in derivatives know everything about it	24	12	52	52	36	24
d)	All employees of stock broking firms know everything about derivatives	32	12	60	64	24	8
e)	Majority of the investors in derivatives act in accordance with the advice of employees of firms	24	16	64	40	24	32
f)	Services of stock broking firms play a pivotal role in	54	20	72	20	16	16

	the selection of securities. (Shares/derivatives						
g)	Employee play a critical role in popularizing derivative transactions	60	32	48	16	20	24
h)	Management of the security trading firms are scientific, systematic and investors are highly useful	44	16	92	24	8	16
i)	Number of investors dealing in derivative instruments is showing an increasing trend	72	12	72	12	20	12

Source: Primary data

Table 3.18a

Value as per Likert's scaling

Weight		5	4	3	2	1	Total
Sl.No.	**Particulars**	**Strongly agree**	**Agree**	**Agree to certain extent**	**Disagree**	**Strongly disagree**	
a)	Dealings in derivatives helps to hedge risk	280	32	300	24	8	664
b)	Lack of knowledge may result in loss	660	64	84	24	12	844
c)	Majority of the investors dealing in derivatives know everything about it	120	48	156	104	36	464
d)	All employees of stock broking firms know everything about derivatives	160	48	180	128	24	540
e)	Majority of the investors in derivatives act in accordance with the advice of employees of firms	120	64	192	80	24	480

f)	Services of stock broking firms play a pivotal role in the selection of securities. (Shares/derivatives	280	80	216	40	16	632
g)	Employee play a critical role in popularizing derivative transactions	300	128	144	32	20	624
h)	Management of the security trading firms are scientific, systematic and investors are highly useful	220	64	276	48	8	616
i)	Number of investors dealing in derivative instruments is showing an increasing trend	360	48	216	24	20	668

Tables 3.18 and 3.18a shows the degree of agreement by the respondents about the statements related to derivative trading. Likerts scaling technique is used to quantify the degree of agreement. All the 200 respondents have expressed their opinion about the statements.

a) Dealings in derivatives helps to hedge risk: 50% of the respondents agree to a certain extent but 56 out of 200 respondents have strong agreement to this statement. The computed value as per the Likert's Scaling technique is 644 and score in the 5 point scale is 3.22. Since the score is just above 3 (value assigned to agree to a certain extent) it can be concluded that the capital market investors are not fully accepting derivatives as a risk hedging mechanism.

b) Lack of Knowledge may result in loss: 132 out of 200 respondents strongly agree to the statement. It is areality that knowledge is the most powerful factor that determines the gain or loss in derivatives market. Hence it is fact that the investors have very good knowledge about the basic aspects about derivatives. The quantified value of the opinion about this statement is 844. The value asper the 5 point scale is 4.2 (844/200), which is a very high value .

c) Majority of the investors dealing in derivatives know every thing about it: Only 24 out of 200 respondants strongly agree with this statement but 52 out of 200 respondents disagree with this statement. The calculated value as per the Likert's Scaling technique is 464 and score in the 5 point scale is 3.34. Since the score is just

above 3. It can be concluded that the capital market investors are agree to a certain extent that majority of the investors dealing in derivatives know everything about it.

d) All employees of stock broking firms know everything about derivatives. The quantified value as per the Likert's scaling technique is 540. Hence the score in a five point scale is just 2.7. Hence it is very clear that investors believe that the level of knowledge of employees of stock market about derivative is low.

e) Majority of the investors in derivatives act in accordance with the advice of employee of firms. The quantified value as per the Likert's scaling technique is 480. Hence the score in a five point scale is just 2.4. Hence it is very clear that investor agrees that investors in derivatives act in accordance with the advice of employee of firms.

f) Services of stock broking firms play a pivotal role in the selection of securities: 54 out of 200 respondents strongly agree to the statement. The computed value of as per the Likert's scaling technique is 632 and score in the 5 point scale is 3.16. Since the score is just above 3. It can be concluded that capital market investors are not fully accepting services of stock broking firms play a pivotal role in the selection of securities.

g) Employee play a critical role in popularizing derivative transactions: 30% of the respondents strongly agree that employee play a critical role in popularizing derivative transactions. The computed value as per the Likert's scaling technique is 624. The value as per the 5 point scale is 3.12 which is a average value. Hence it is clear that employee play a critical role in popularities derivative transactions.

h) Management of the security trading firms are scientific, systematic and investors are highly useful: 152 out of 200 respondents agree to a certain extent but 48 out of 200 respondents have strong agreement to this statement. The computed value as per the Likert's scaling technique is 616 and score in the 5 point scale is 3.08. Since the score is above 3 i.e., value assigned to agree to a certain extent. It can be concluded that the capital market investors are not fully accepting management of the security trading firms are scientific, systematic and investors are highly useful.

i) Number of investors dealing in derivative instruments is showing an increasing trend. 78% of the respondents agree to a certain extent but 72 out of 200 respondents have strong agreement to this statement. The quantified value as per the Likert's scaling technique is 668. Hence

the score in a 5 point scale is 3.34. It can be concluded that the capital market investors are agrees that number of investors dealing in derivative instruments is showing an increasing trend.

Table 3.19

Problems experienced by the respondents in derivative trading

Sl. No.	Particulars	No	%
1	Non availability of timely information	56	37.84
2	System break down	52	35.14
3	Lack thorough knowledge	24	16.22
4	Lack of technical support	68	45.95
5	Others	48	32.43

Source: Primary data

Table 3.19 shows the problems experienced by the respondents in derivative trading 45.95% of traders are experienced problem is lack of technical support. 37.84% of traders faces the problem is that non-availability of timely information. 35.14% of the derivative traders are faces the problem is that system break down. 32.43% traders faces other problems. 16.22% trades faces lack thorough knowledge which is lead to loss in trading.

HYPOTHESIS – I

Education and derivative investment

Level of education	Invest in derivative	Not invest in derivative	Total
Upto Plus two	40	20	60
Graduates, PG& others	108	32	35
Total	37	13	50

Ho: There is association between the preference towards derivatives and education.

Level of significance : 5%

Degree of freedom : 1

Calculated value : 0.599

Critical value : 3.841

As the calculated value is less than critical value the null hypothesis is accepted. That means education background of respondents and investment in derivative are independent.

HYPOTHESIS – II

Level of income and derivative investment

Level of income	Invest in derivative	Not invest in derivative	Total
Below 10,000	108	20	128
Above 10,000	40	32	72
Total	148	52	200

Ho: There is no association between the preference towards derivatives and level of income.

Level of significance : 5%

Degree of freedom : 1

Calculated value : 4.98

Table value : 3.841

Since the computed values of χ^2 is greater than table value of χ^2 reject Ho. It means level of income and investment in derivative is related. Level of income of respondent and their investment decision about derivatives are related.

HYPOTHESIS – III

Experience in capital market

Level of experience in capital market	Invest in derivative	Not invest in derivative	Total
1 yr – 5 yrs	92	24	116
Above 5 yrs	56	28	84
Total	148	52	200

Ho: There is no association between the preference towards derivatives and experience in capital market.

Level of significance : 5%

Degree of freedom : 1

Calculated value : 1.174

Table value : 3.841

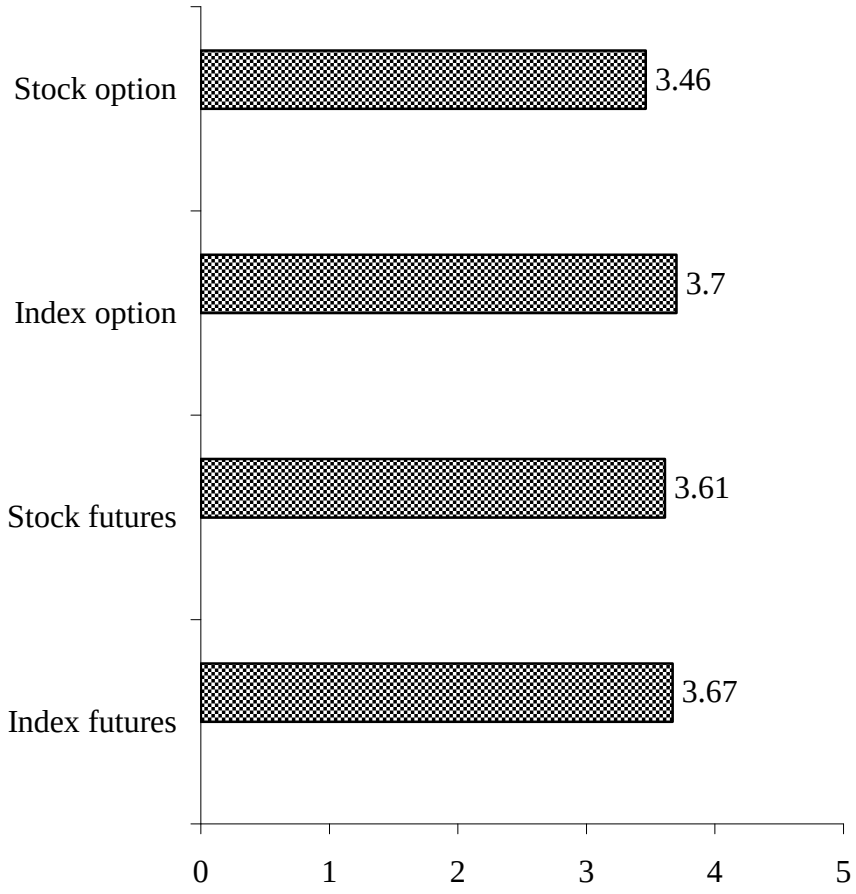
Since the computed value of χ^2 is less than critical value of χ^2 Accept **Ho:** It is therefore conclude that preference towards derivatives and experience in capital market are not related.

HYPOTHESIS – IV

Return on Derivative

Ho: There is no significant difference in the perception of investors regarding different derivative instruments.

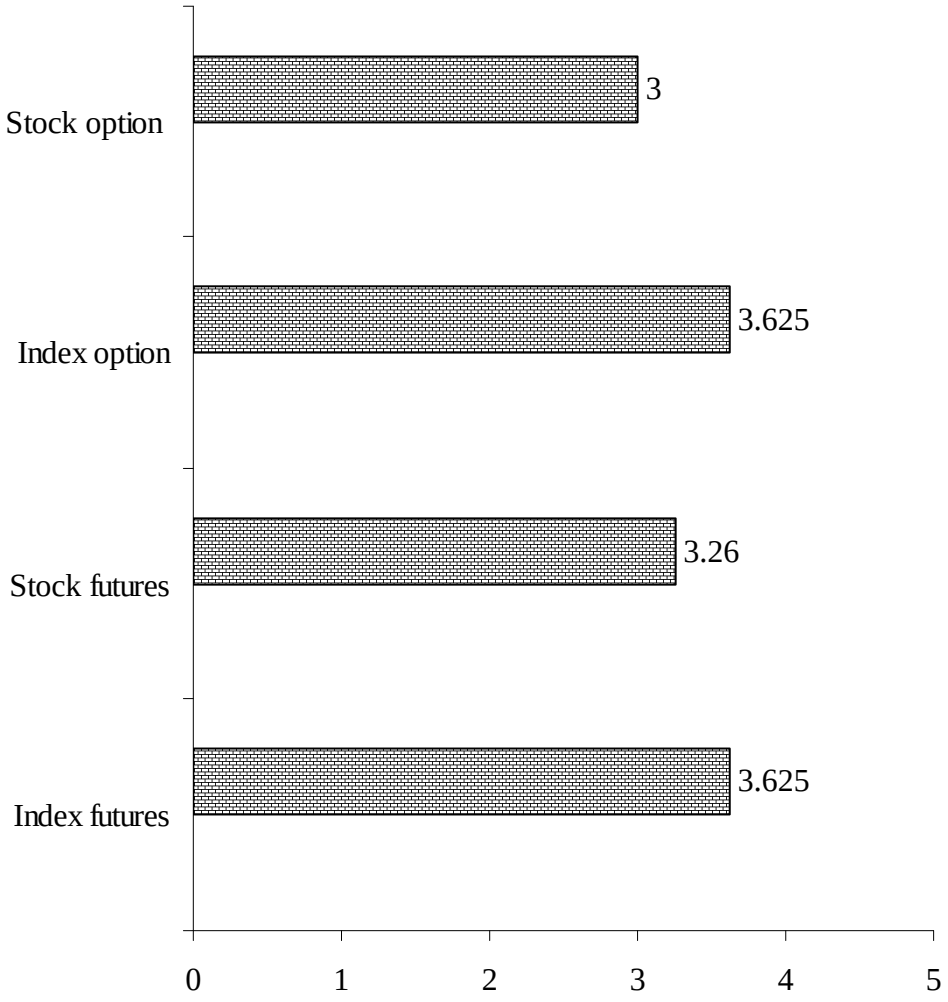
Likerts scaling Techniques is used for analysis. Return perception of investors.



Return perception of investors regarding different derivative instruments are almost equal. Index option have high return than other instruments.

Risk of Derivative

Ho: There is no significant difference in the perception of investors regarding risk of different derivative instruments.



Risk perception of investors is different for different derivative instruments. Risk perception of index options and stock futures are same. Risk associated with stock options is minimum.

Chapter IV

Findings, Suggestions and Conclusion

FINDINGS, CONCLUSION AND SUGGESTION

Findings of the study

Financial derivatives are the most popular mode of investment in capital market. Commodities market is also gaining popularity world over. The present study is undertaken among small investors actively engaged in capital market. Following are the major findings of the study

- Majority of the traders are highly educated 70% of the selected investors have bachelors degree or post graduate degree.
- Business people have prominence in the field of derivative trading.
- Most of the respondents belong to the average income of Rs.10,000. 84% of the respondents have monthly income below Rs.20,000.
- It is found that most of the respondents have more than 2 investment avenues. Investors prefer to invest their funds in stock market, bank and insurance.
- It is found that 76% of the respondents have investment in equity shares and 74% of the respondents invested their funds in derivatives. Only 4% of the traders have invested in debentures.

- It was found that 82% of the respondents have more than 5 years experience in the field of stock trading.
- Study is found that 45.95% of the respondents invest their funds in derivative for obtaining large profits. Risk hedging comes only as the second choice. The risk hedging capacity of derivatives was acknowledged only by 21.62% of respondents.
- This study found out that risk – hedging ability of derivative is effective.
- Stock option is the favourite for 75.68% of the investors in derivatives. Futures contracts are more preferred by the investors than options. 81% of the investors deal in futures and 78.38% of the investors deal in options.
- 67.57% of investors enter into one-month contract
- 72.98% investors either deal daily or weekly.
- Investors believe that the liquidity of stock options is high. Derivative traders have average liquidity perception about stock futures, index options and index futures.
- The respondents in generally perceive that the return on stock options is high. Opinion of respondents regarding the return on stock futures, index options and index futures is average.

- It was found that risk of stock futures and index futures are high. Risk perception about stock option and index options is average.
- 90% of future dealers have average monthly investment less than Rs.4 lakhs 69% of option dealers have average monthly investment Rs.50,000 or less.
- It was found out that dealings in derivative helps to hedge risk.
- Investors strongly agrees that lack of knowledge about derivative trading will result in loss. Awareness about this fact is very high.
- Investors dealing in derivatives believer that they know everything about derivative trading. It shows either ignorance about the derivatives/they pretend that they know everything about it.
- Investors disagree that all employees of stock broking firms know everything about derivative.
- Respondents agree that investors in derivatives act in accordance with the advice of employees of stock trading firms.
- Majority of the respondents agreed that services of stock broking firms play a pivotal role in the selection of securities.

- It was found out that employees play a critical role in popularsing derivative transactions.
- Respondents agree that management of security trading firms are scientific, systematic and highly helpful to the investors.
- It was found that number of investors dealing in derivative instruments is showing an increasing trend.
- 45.95% of the traders are experienced problem is that lock of technical support. 37.84% of the traders are experienced problem is that non-availability of timely information.
- The preference towards derivative and experience in capital market are not related.
- Education background of respondents and investment in derivative are independent.
- Level of income of respondent and investment in derivative is related level of income of respondent and their investment decision about derivatives are related.
- Return perception of investors regarding different derivative instruments are almost equal. Index option have high return than other instruments.
- Risk perception of investors is different for different instruments. Risk perception of index options and stock

futures are same. Risk associated with stock option is minimum.

- Major problems faced by the investors in security trading firms are the lack of technical support and non-availability of timely information.

Conclusion and Suggestions

Derivatives are risk hedging mechanisms. Capital market investors are using financial derivatives to optimize return and minimize risk on investment. The present study is undertaken among small investors in capital market. The result f the study reveals that small investors are not considering derivatives as a tool for hedging risk. This shows the level of ignorance of the small investors about financial derivatives. The authorities of capital market, stock exchange and firms dealing in derivatives must try their level best to improve the level of knowledge of investors about derivatives. To facilitate the development of the derivatives market, it is necessary to educate the market participants and the investors on the nuances of these new age products and their strategic uses.

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Appendix

A study on Experiences and Perceptions of Capital Market Investors on Financial Derivatives

APPENDIX

Questionnaire

1. Name :
2. Age:
3. Sex: Male ☐ Female ☐
4. Educational Qualification

   SSLC ☐ Graduate ☐ Post Graduate ☐ Professional Degree ☐

5. Occupation

   Business ☐ Employee ☐ Professional ☐ Agriculturist ☐ Others ☐

6. Monthly Income:

   Below Rs.10,000 ☐ 10000 – 20000 ☐

   20000 – 30000 ☐ Above 30000 ☐

7. Where you invest your savings?

   Bank ☐ Real Estate ☐ National Saving Scheme ☐

   Insurance ☐ Stock Market ☐ Others ☐

8. If stock market, in which category you invest?

   Equity shares ☐ Debentures ☐ Mutual Fund ☐

   Derivatives ☐ Others ☐

9. How long have you been engaged in stock trading?

Less than 1 years ☐ 1 – 5 years ☐ 5 – 10 years ☐

More than 10 years ☐

10. What are the reasons for investment in derivatives?

Short term finance ☐ Less Investment cost ☐ Less risk ☐

Chance to earn high return ☐ Others ☐

11. Do you trade in the following Financial Derivatives?

a) Futures Yes ☐ No ☐

b) Options Yes ☐ No ☐

12. How do you rate Derivatives as a tool for reducing risk?

Highly Effective ☐ Effective ☐ Not effective ☐

Highly ineffective ☐ No opinion ☐

13. Which Derivative products do you trade in?

Stock options ☐ Stock futures ☐

Index Options ☐ Index futures ☐

14. Duration of the derivative contracts you enter into?

1 month ☐ 2 months ☐ 3 months ☐ Multiple ☐

15. How frequently do you make deals in Derivatives?

Daily ☐ Weekly ☐ Fortnightly ☐ Monthly ☐

16. Indicate your rating about the liquidity, Return & Risk of the Derivative Products

Liquidity

Stock Options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Stock Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Return

Stock Options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Stock Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Risk

Stock Options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Stock Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index options: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

Index Futures: Very High ☐ High ☐ Average ☐ Low ☐ Very low ☐

17. Indicate your average monthly investment in futures & options value

Options: Below Rs. 25000 ☐ 25000 – 50000 ☐

50000 – 75000 ☐ 75000 – 100000 ☐ Above 100000 ☐

Futures: Below Rs.1 lakh ☐ 1 lakh – 4 lakhs ☐

4 lakhs – 8 lakhs ☐ 8 lakhs – 10 lakhs ☐ Above 10 lakhs ☐

18. Express you Degree of agreement/disagreement to the following statements

	Strongly Agree	Strongly Disagree	Agree to a certain extent	Disagree	Strongly disagree	No opinion
a) Dealings in derivatives helps to hedge risk	☐	☐	☐	☐	☐	☐
b) Lack of knowledge may Result in loss	☐	☐	☐	☐	☐	☐
c) Majority of the investors dealing in derivatives know everything about it	☐	☐	☐	☐	☐	☐
d) All employee of stock broking firms know everything about derivatives	☐	☐	☐	☐	☐	☐
e) Majority of the investors in derivatives act in accordance with the advice of employees of firms	☐	☐	☐	☐	☐	☐
f) Services of stock broking firms play a pivotal role in the selection of securities (shares/derivatives)	☐	☐	☐	☐	☐	☐

g) Employee play a critical role in popularizing derivative transactions	☐	☐	☐	☐	☐	☐
h) Management of the security trading firms are scientific, systematic and investors are highly useful	☐	☐	☐	☐	☐	☐
i) Number of investors dealing in derivative instruments is showing an increasing trend	☐	☐	☐	☐	☐	☐

19. Which of the following troubles do you experience in Derivative trading?

Non availability of timely information ☐ System break down ☐

Lack of thorough knowledge ☐ Lack of technical support ☐

Others ☐