Project Dissertation

A STUDY ON FINANCIAL DERIVATIVES (FUTURES AND OPTIONS) IN INFRASTRUCTURE SECTOR

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CERTIFICATE FROM THE INSTITUTE

This is to certify that the Project Report titled "**A Study on Financial Derivatives (Futures and Options) in Infrastructure Sector"** is a bonafide work carried out by **Ms. Mrinmayee Gunti** of MBA 2014-16 and submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfillment of the requirement for the award of the Degree of Masters of Business Administration.

Signature of Guide   Signature of Head (DSM)

Place:

Date: Seal of Head

DECLARATION

I **Mrinmayee Gunti,** student of MBA 2014-16 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 declare that Project Report on "**A Study on Financial Derivatives (Futures and Options) in Infrastructure Sector"** submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge. This Report is not being submitted to any other University for award of any other Degree, Diploma and Fellowship.

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Place:

Date:

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without mentioning the people whose constant guidance and encouragement made it possible. I take pleasure in presenting before you, my project, which is a result of studied blend of both research and knowledge.

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I thank **Dr. Pradeep Kumar Suri**, Professor and Head of the Department, Delhi School of Management for guiding me through proper grooves and giving me the necessary support.

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With gratitude,

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ABSTRACT

The emergence of the market for derivatives products, most notably forwards, futures and options, can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. Derivatives are risk management instruments, which derive their value from an underlying asset. Prices in an organized derivatives market reflect the perception of market participants about the future and lead the price of underlying to the perceived future level.

 In recent times the derivative markets have gained importance in terms of their vital role in the economy. The increasing investments in stocks (domestic as well as overseas) have attracted my interest in this area. Numerous studies on the effects of futures and options listing on the underlying cash market volatility have been done in the developed markets. Derivatives are mostly used for hedging purpose. In this segment, the investor enjoys huge profits with limited downside.

Also, since infrastructure growth is directly correlated with improvement in economy and with the Government's initiative of 100 smart cities being planned, we will need solid infrastructure development including housing, roads, highways and IT infra across the country. So as we see India's economic activities picking up, infrastructure sector will be the early beneficiary apart from capital goods, power, IT. Thus, from investment point of view, this sector seems to gain the most and investors might be watching out for these stocks.

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1. INTRODUCTION

A derivative is a security with a price that is dependent upon or derived from one or more underlying assets. The derivative itself is a contract between two or more parties based upon the asset or assets. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.

Derivatives either be traded over-the-counter (OTC) or on an exchange. OTC derivatives constitute the greater proportion of derivatives in existence and are unregulated, whereas derivatives traded on exchanges are standardized. OTC derivatives generally have greater risk for the counterparty than do standardized derivatives.

Originally, derivatives were used to ensure balanced exchange rates for goods traded internationally. With differing values of different national currencies, international traders needed a system of accounting for these differences. Today, derivatives are based upon a wide variety of transactions and have many more uses. There are even derivatives based on weather data, such as the amount of rain or the number of sunny days in a particular region.

Three broad categories of participants – hedgers, speculators, arbitrageurs trade in the derivatives market.

1) Hedgers:
   These are investors with a present or anticipated exposure to the underlying asset which is subject to price risks. Hedgers use the derivatives markets primarily for price risk management of assets and portfolios.

2) Speculators:
   These are individuals who take a view on the future direction of the markets. They take a view whether prices would rise or fall in future and accordingly buy or sell futures and options to try and make a profit from the future price

movements of the underlying asset.

3) Arbitrageurs:

They take positions in financial markets to earn riskless profits. The arbitrageurs take short and long positions in the same or different contracts at the same time to create a position which can generate a riskless profit.

❖ Functions of Derivatives:

The various functions of derivatives include:

➢ Derivatives help in discovery of future as well as current prices.
➢ The derivatives market helps to transfer risks from those who have them but may not like them to those who have appetite for them.
➢ Derivatives, due to their inherent nature, are linked to the underlying cash markets. With the introduction of derivatives, the underlying market witnesses higher trading volumes because of participation by more players who would not otherwise participate for lack of an arrangement to transfer risk.
➢ Speculative trades shift to a more controlled environment of derivatives market. In the absence of an organized derivatives market, speculators trade in the underlying cash markets. Margining, monitoring and surveillance of the activities of various participants become extremely difficult in these kind of mixed markets.
➢ It acts as a catalyst for new entrepreneurial activity.

❖ Types of Derivatives:

The most commonly used derivatives contracts are forwards, futures, options and swaps.

1. Forwards: A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price.

2. <u>Futures:</u> A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts.

3. <u>Options:</u> Options are of two types - calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

4. <u>Swaps:</u> Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts.

❖ <u>Introduction to Futures:</u>

A Futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Future markets were designed to solve the problems that exist in forward markets. But unlike forward contracts, the futures contracts ate standardized and exchange traded. To facilitate liquidity in the futures contracts, the exchange specifies certain standard features of the contract. It is a standardized contract with standard underlying instrument, a standard quantity and quality of the underlying instrument that can be delivered, (or which can be used for reference purposes in settlement) and a standard timing of such settlement.

The standardized items in a futures contract are:
➢ Quantity of the underlying
➢ Quality of the underlying
➢ Date and Month of Delivery
➢ The units of Price quotations and
➢ Minimum price changes

➢ Location of settlement

❖ <u>Types of Futures</u>

On the basis of the underlying asset they derive, the futures are divided into following types:

1. <u>Stock Futures</u>

    The stock futures are the futures that have the underlying asset as the individual securities. The settlement of the stock futures is of cash settlement and the settlement price of the future is the closing price of the underlying security.

2. <u>Index Futures</u>

    Index futures are the futures, which have the underlying asset as an Index. The Index futures are also cash settled. The settlement price of the Index futures shall be the closing value of the underlying index on the expiry date of the contract.

3. <u>Commodity Futures</u>

    In this case, the underlying asset is a commodity. It can be an agricultural commodity like wheat corn, or even a precious asset like gold, silver etc.

4. <u>Financial Futures</u>

    In this case, the underlying assets are financial instruments like money market paper, Treasury Bills, notes, bonds etc.

5. <u>Currency Futures</u>

    Currency futures are those in which the underlying assets are major convertible currencies like the U.S. dollar, the Pound Sterling, the Euro and the Yen etc.

The mechanics of futures trading are straightforward: both buyers and sellers deposit funds traditionally called margin but more correctly characterized as a performance bond or good faith deposit with a brokerage firm. This amount is typically a small percentage, less than 10 percent of the total value of the item underlying the contract.

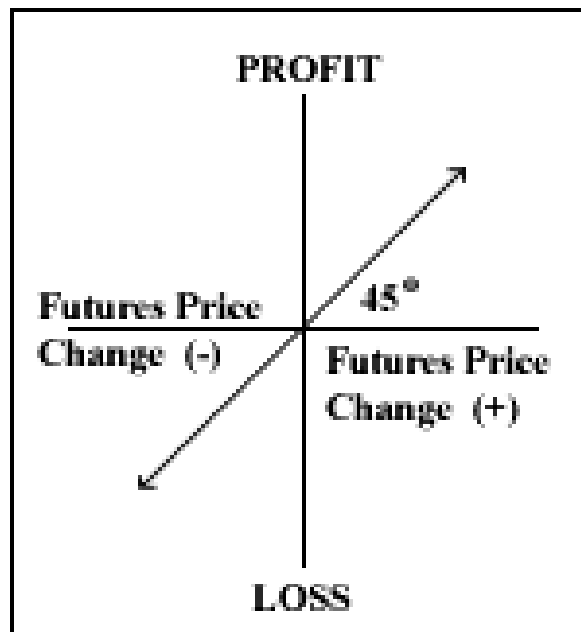❖ Payoff of a Long Futures Position

Figure 1: Payoff diagram of a long futures position

As indicated in Figure 1, if you buy (go long) a futures contract and the price goes up, you profit by the amount of the price increase times the contract size; if you buy and the price goes down, you lose an amount equal to the price decrease times the contract size.

Figure 2 reflects the profit and loss potential of a short futures position. If you sell (go short) a futures contract and the price goes down, you profit by the amount of the price decrease times the contract size; if you sell and the price goes up, you lose an amount equal to the price increase times the contract size. These profits and losses are paid daily via the futures margining system.
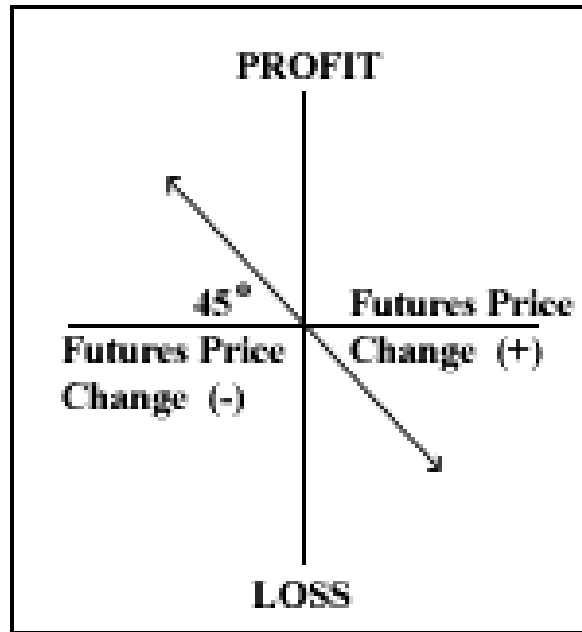
Figure 2: Payoff Diagram of a Short Futures Position

❖ Introduction to Options

Option is a type of contract between two persons where one grants the other the right to buy a specific asset at a specific price within a specific time period. Alternatively the contract may grant the other person the right to sell a specific asset at a specific price within a specific time period. In order to have this right, the option buyer has to pay the seller of the option premium.

The assets on which option can be derived are stocks, commodities, indexes etc. If the underlying asset is the financial asset, then the option are financial option like stock options, currency options, index options etc, and if options like commodity option.

❖ Properties of Options

Options have several unique properties that set them apart from other securities. The following are the properties of option:

- ➢ Limited Loss
- ➢ High leverages potential
- ➢ Limited Life

❖ **Parties in an Option Contract:**

There are two participants in Option Contract.

1. **Buyer/Holder/Owner of an Option:**

The Buyer of an Option is the one who by paying the option premium buys the right but not the obligation to exercise his option on the seller/writer.

2. **Seller/writer of an Option:**

The writer of a call/put option is the one who receives the option premium and is thereby obliged to sell/buy the asset if the buyer exercises on him.

❖ **Types of Options:**

The Options are classified into various types on the basis of various variables. The following are the various types of options.

1. **On the basis of the underlying asset:**

On the basis of the underlying asset the option are divided in to two types:

a) **Index options:**

These options have the index as the underlying. Some options are European while others are American. Like index futures contracts, index options contracts are also cash settled.

b) **Stock options:**

Stock Options are options on individual stocks. Options currently trade on over 500 stocks in the United States. A contract gives the holder the right to buy or sell shares at the specified price.

2. <u>On the basis of the market movements:</u>

On the basis of the market movements the option are divided into two types. They are:

a) <u>Call Option:</u>

A call Option gives the holder the right but not the obligation to buy an asset by a certain date for a certain price. It is brought by an investor when he seems that the stock price moves upwards.

b) <u>Put Option:</u>

A put option gives the holder the right but not the obligation to sell an asset by a certain date for a certain price. It is bought by an investor when he seems that the stock price moves downwards.

3. <u>On the basis of exercise of option:</u>

On the basis of the exercise of the Option, the options are classified into two Categories.

a) <u>American Option:</u>

American options are options that can be exercised at any time up to the expiration date. Most exchange –traded options are American.

b) <u>European Option:</u>

European options are options that can be exercised only on the expiration date itself. European options are easier to analyze than American options, and properties of an American option are frequently deduced from those of its European counterpart.

❖ <u>Payoff Profiles for Call Option Holder and Writer</u>

A Call option is a bullish instrument, which is purchased when you expect prices to rise and want to benefit from that rise. As you can see in the payoff diagram above the value of call option increases when prices rise but the downside when prices fall is limited to the premium lost when the option is not exercised.
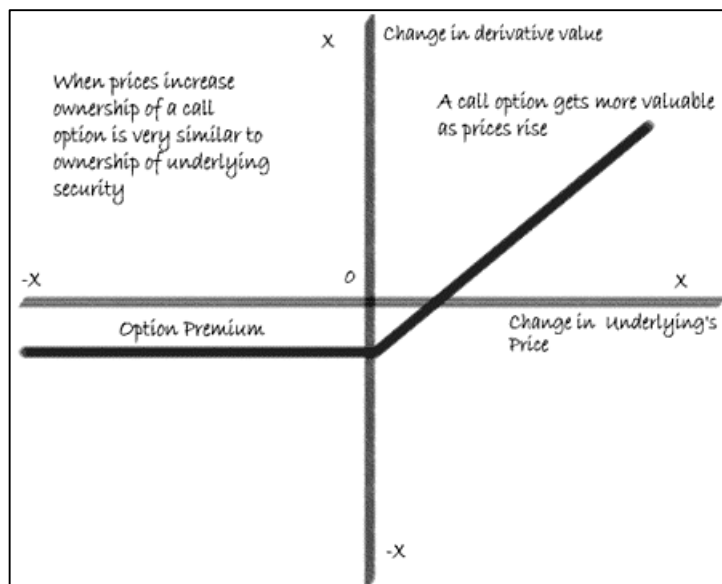
Figure 3: Payoff diagram of a call option holder
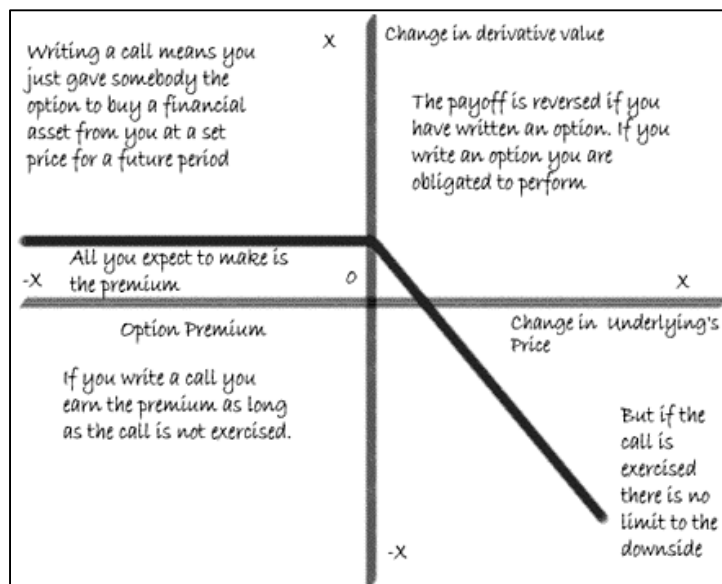
Figure 4: Payoff diagram of a call option writer

Unlike the buyer of a call, the seller of a call is obligated to perform. His upside is the premium that he retains when the call option is not exercised; his downside is the direct inverse of the payoff profile of the buyer of the call

❖ Payoff Profiles for Put Option Holder and Writer

The same rules hold true for buyer and seller of the put option
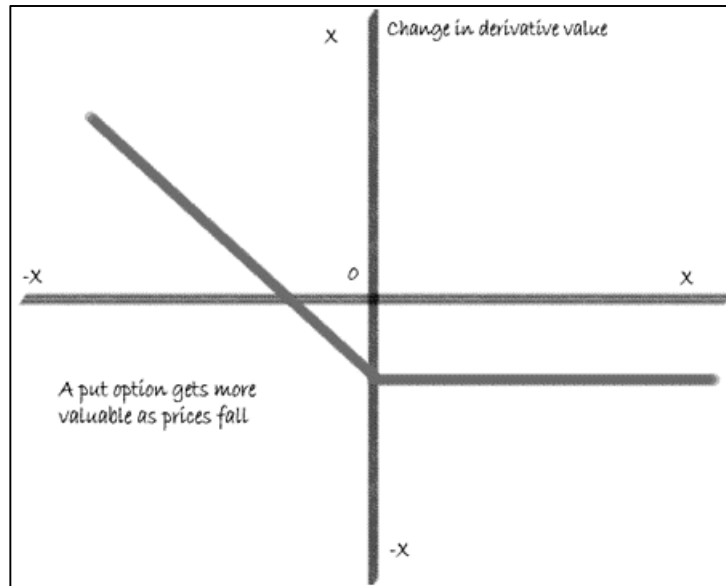
Figure 5: Payoff diagram of a put option holder

Figure 6: Payoff diagram of a put option writer

2. LITERATURE REVIEW

Derivatives market is an innovation to cash market. Approximately its daily turnover reaches to the equal stage of cash market. Numerous studies on the effects of futures and options listing on the underlying cash market volatility have been done in the developed markets. The following research papers contributed towards my interest in this area and have also formed the basis for my study.

a) Behaviour of Stock Market Volatility after Derivatives
   Golaka C Nath, Research Paper (NSE)

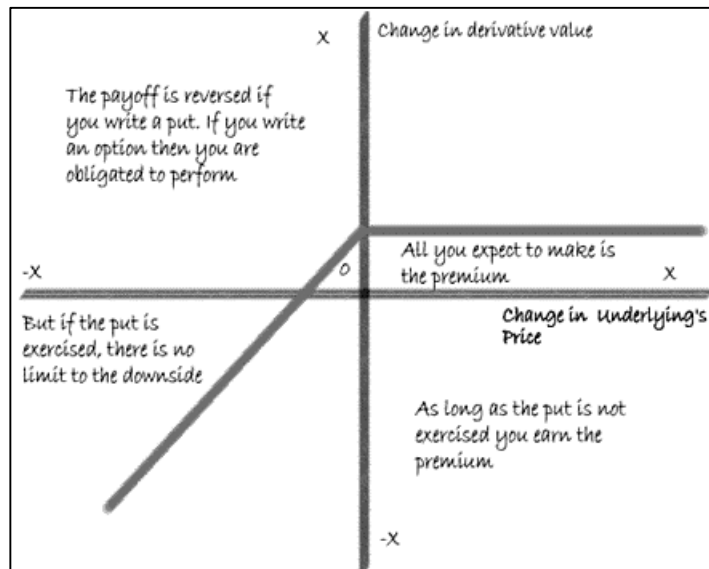Financial market liberalization since early 1990s has brought about major changes in the financial markets in India. The creation and empowerment of Securities and Exchange Board of India (SEBI) has helped in providing higher level accountability in the market. New institutions like National Stock Exchange of India (NSEIL), National Securities Clearing Corporation (NSCCL), National Securities Depository (NSDL) have been the change agents and helped cleaning the system and provided safety to investing public at large. With modern technology in hand, these institutions did set benchmarks and standards for others to follow. Microstructure changes brought about reduction in transaction cost that helped investors to lock in a deal faster and cheaper.

One decade of reforms saw implementation of policies that have improved transparency in the system, provided for cheaper mode of information dissemination without much time delay, better corporate governance, etc. The capital market witnessed a major transformation and structural change during the period. The reforms process have helped to improve efficiency in information dissemination, enhancing transparency, prohibiting unfair trade practices like insider trading and price rigging. Introduction of derivatives in Indian capital market was initiated by the Government through L C Gupta Committee report. The L.C. Gupta Committee on Derivatives had recommended in December 1997 the introduction of stock index futures in the first place to be followed by other products once the market matures. The preparation of regulatory framework for the operations of the index futures contracts took some more time and finally futures on benchmark

indices were introduced in June 2000 followed by options on indices in June 2001 followed by options on individual stocks in July 2001 and finally followed by futures on individual stocks in November 2001.

b) Do Futures and Options trading increase stock market volatility?

Dr. Premalata Shenbagaraman, Research Paper (NSE)

Numerous studies on the effects of futures and options listing on the underlying cash market volatility have been done in the developed markets. The empirical evidence is mixed and most suggest that the introduction of derivatives do not destabilize the underlying market. The studies also show that the introduction of derivative contracts improves liquidity and reduces informational asymmetries in the market. In the late nineties, many emerging and transition economies have introduced derivative contracts, raising interesting issues unique to these markets. Emerging stock markets operate in very different economic, political, technological and social environments than markets in developed countries like the USA or the UK. This paper explores the impact of the introduction of derivative trading on cash market volatility using data on stock index futures and options contracts traded on the S & P CNX Nifty (India). The results suggest that futures and options trading have not led to a change in the volatility of the underlying stock index, but the nature of volatility seems to have changed post-futures. We also examine whether greater futures trading activity (volume and open interest) is associated with greater spot market volatility. We find no evidence of any link between trading activity variables in the futures market and spot market volatility. The results of this study are especially important to stock exchange officials and regulators in designing trading mechanisms and contract specifications for derivative contracts, thereby enhancing their value as risk management tools.

c) An Analysis Of Variations Of Implied Volatilities Of A Selected Sample Of Indian Call Options

Dr. Debasis   Bagchi

In India, trading in derivatives was recently introduced. Market Regulators find volatility in Indian market is much higher than in developed market. The higher volatility induces investors to buy Call options since they are willing to pay higher premium. This paper seeks to understand what are the causes of volatility and examines the implied volatility of Call options of a sample of largest traded option stocks in India. Volume of options traded, strike price, option premium and stock price in various combinations are used as variables in the analysis. The investigation yields mixed results. In certain cases, the mean volatility of in-the-money call options is higher than that of out-of-the-money call options while in other cases opposite results are observed. The regression analysis finds that the volume of traded option has a significant negative relationship on the implied volatility. The ratio of strike price plus premium to stock price is also found to be negatively related to implied volatility. There exists positive relationship of these two variables on implied volatility in some cases. The results are similar to the findings of Rubenstein. The reasons for the contradictory results are not clear but may perhaps be due to fluidity of general political and economic condition prevailing in India during the period under study. This may have led to asymmetric behaviour on the part of the investors. However, it was found that premium-volume differential of the call options is positively related to the volatility of all the sample stocks.

d) The Impact of Derivatives on Cash Markets: What Have We Learned?

Stewart Mayhew

This paper summarizes the theoretical and empirical research on how the introduction of derivative securities affects the underlying market. The theoretical research has revealed that there are many different aspects of the relationship between cash and derivative markets. Although many models predict that derivatives should have a stabilizing effect, this result normally requires restrictive assumptions. At the end of the day, the

theoretical literature gives ambiguous predictions about the effects of derivatives markets.

As for the empirical literature, research has uncovered several stylized facts, most of which suggest that derivatives tend to help stabilize prices and improve liquidity in the underlying market, and that some price discovery occurs in derivative markets. It should be noted, however, that there are also many studies that come to the conclusion that derivatives have had no significant impact on cash markets. In addition, this research has concentrated primarily on exchange-traded derivatives in developed countries. Selected papers have been written about particular developing markets here and there, but it is difficult to derive firm conclusions.

We are in a period of vast growth of derivative markets. We see this growth both in OTC markets and on exchanges, in developed and developing nations, in the introduction of new types of contracts, and in the extension of derivatives to new underying markets. Now, more than ever, we need to fully understand the relationship between derivative and cash markets. Which results from the developing markets may be applied to emerging markets? Which results from index futures can be applied to electricity futures? Which results from stock options can be applied to currency knockouts? Despite the hundreds of papers already written in this field, the rapid growth of derivative markets continues to provide us with new, important and interesting questions.

e) **Futures Trading and Its Impact on Volatility of Indian Stock Market**
Namita Rajput, Ruhi Kakkar and Geetanjali Batra

In a perfectly functioning world, every bit of information should be replicated concurrently in the both spot market and its futures markets. However, in actuality, information can be disseminated in one market first and then send out to other markets owing to market imperfections. The study investigates how much of the volatility in one market can be explained by volatility innovations in the other market and how fast these movements transfer between these markets. Thus, the lead-lag relationship in returns and volatilities between spot and futures markets is of interest to academicians, practitioners, and regulators. If volatility spillovers exist from one market to the other, then the

volatility transmitting market may be used by market agents, who need to cover the risk exposure that they face, as a very important vehicle of price discovery. For example, the information about instantaneous impact and lagged effects of shocks between spot and futures prices may be used in decision making regarding hedging activities A deep understanding of the dynamic relation of spot and futures prices and its relation to the basis provides these "agents" the ability to use hedging in a more skilled mode. Furthermore, if a return analysis is questionable, volatility spillovers provide an alternative measure of information transmission. Owing to these grounds, research committed to the relationship between futures and spot returns (first moments) has been capacious with this interest growing to examining higher moment dependencies (time-varying spillovers) between markets.

An investor who is trading in futures market should always watch out for volatility in the stock market. From regulators point of view, whenever there is unexpected volatility in spot market; regulator should take necessary steps to curb the volatility. Otherwise the excess volatility in the spot market will spillover to futures market thereby making the futures market unstable. Spot market reacts to information faster than futures market and serves as a price discovery vehicle for futures market. The possible reasons are that S&P CNX Nifty futures is relatively new, retail and proprietary investors contribute around 90% of the trading value of Indian derivatives market, while institutional investors are mainly dealing with spot market. Institutional investors, both foreign and domestic are a force to reckon with in the Indian stock market. They provide efficiency to any market in which they are. They will make new information reflected in the stock prices as early as possible. With proper risk management system in place, they should be given equal access to both spot and derivatives market. At the practical level, a better understanding of the mean and variance dynamics of the spot and futures market can improve risk management and investment decisions of the market agents.

f) Will increased regulation of stock index futures reduce stock market volatility?

Sean Becketti and Dan J. Roberts

The high correlation between stock index futures prices and stock prices, combined with the low cost of futures trading, has led some observers to blame high levels of stock index futures activity for recent bouts of volatility in the stock market. Circuit breakers were adopted partly to reduce futures activity in order to reduce stock market volatility. Higher margins also have been proposed to reduce futures activity. However, circuit breakers and higher margins impose costs on investors and may have adverse effects on the functioning of financial markets. Thus, reducing futures market activity to reduce stock market volatility makes sense only if futures trading is responsible for volatility.

To reduce the effect of futures on stock market volatility, regulations aimed at reducing the general level of futures activity have already been adopted or have been proposed. While these regulations may or may not reduce stock market volatility, they certainly will impose costs on participants in the stock index futures market. Because the regulations are costly, it is important to find out whether the stock index futures market actually contributes to stock market volatility.

This article finds little or no relationship between stock market volatility and either the existence of, or the level of activity in, the stock index futures market. As a result, while circuit breakers and higher margins may be useful for other reasons, their depressing influence on the volume of futures trading is unlikely to reduce stock market volatility.

g) Another Look at Option Listing Effects

Stewart Mayhew and Vassil Mihov

Previous research documents that the introduction of options seems to affect the volatility, liquidity, price and other characteristics of the underlying stock. Existing research, however, has not adequately accounted for the fact that option listing is endogenous, a result of decisions made by exchanges and regulators. We investigate the

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factors affecting the exchanges' listing decisions by comparing the characteristics of stocks selected for option listing to other stocks that were eligible but not listed. We find that firm size, volume, and volatility are positively related to the probability of listing, but their relative contributions have changed significantly over time. We then use the results of this analysis to construct various matched samples, composed of stocks that were eligible, but not selected for option listing, and we re-examine some of the option listing effects reported in the literature using a control-sample methodology. Contrary to previous research, we find that in recent subperiods, volatility increases with option listing, consistent with the hypothesis that forward-looking exchanges list options in anticipation of increasing volatility. We verify previous findings that underlying volume increases with option listing, and that there was a positive price effect associated with option listing prior to 1981. However, evidence of a negative price effect after 1981 appears to be much weaker than previously reported. Finally, we document a cross-sectional relationship between the price effect, the volume effect and the volatility effect.

3. NEED, OBJECTIVES AND SCOPE OF THE STUDY

3.1 Need for study:

In recent times the Derivative markets have gained importance in terms of their vital role in the economy. Through the use of derivative products, it is possible to partially or fully transfer price risks by locking-in asset prices. As the volume of trading is tremendously increasing in derivatives market, this analysis will be of immense help to the investors.

Also, since infrastructure growth is directly correlated with improvement in economy and with the Government's initiative of 100 smart cities being planned, we will need solid infrastructure development including housing, roads, highways and IT infra across the country. So as we see India's economic activities picking up, infrastructure sector will be the early beneficiary apart from capital goods, power, IT. Thus, from investment point of view, this sector seems to gain the most and investors might be watching out for these stocks.

3.2 Objectives of the Study:

➢ To analyze the operations of futures and options in infrastructure sector.

➢ To find the profit/loss position of futures buyer and seller and also the option writer and option holder.

➢ To study about risk management with the help of derivatives.

3.3 Scope of the Study:

The study is limited to "Derivatives" with special reference to futures and options in infrastructure sector. The study is limited to the stocks of just 3 companies in infrastructure sector namely, Larsen & Toubro Ltd, Reliance Infrastructure Ltd and GMR Infrastructure Ltd. The data collected is restricted to the month of March 2016 thus considering only the monthly report.

4. METHODOLOGY:

4.1 Data Collection:

Marketing research requires data, and secondary data is often the most convenient and cost-effective option. Secondary data, is data collected by someone other than the user.

The sources of secondary data can be categorized into internal sources and external sources. Internal sources include data that exists and is stored inside the organization. External data is data that is collected by other people or organizations from our organization's external environment.

To fulfill the objectives of the study, data has been collected through Secondary data collection. Secondary data was collected from the journals, news links, books, etc. Various web portals like those of nse, moneycontrol, investopedia, etc were referred to.

The study is focused on infrastructure sector as investors would be watching out for the stocks of this sector in the wake of Smart Cities initiative by the Indian Government. The companies chosen are L&T Ltd., Reliance Infrastructure Ltd. and GMR Infrastructure Ltd. as these are the top performing stocks in infrastructure sector. The contract period considered is the month of March 2016.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Introduction to the case:

The scrip chosen for analysis is L&T, RELIANCE INFRA and GMR INFRA and the contract taken is March 2016 ending one –month contract.

a) <u>Larsen & Toubro Ltd</u>

Larsen & Toubro is a major technology, engineering, construction, manufacturing and financial services conglomerate, with global operations. L&T addresses critical needs in key sectors - Hydrocarbon, Infrastructure, Power, Process Industries and Defense - for customers in over 30 countries around the world. It is headquartered in Mumbai, Maharashtra, India. It was founded by Danish engineers taking refuge in India, as well as an Indian financing partner.

b) <u>Reliance Infrastructure Ltd</u>

Reliance Infrastructure Ltd. is India's largest private sector enterprise power utility and construction company. It is part of the Reliance Anil Dhirubhai Ambani Group. The company is headed by Anil Ambani. The corporate headquarters is in Mumbai. Reliance Infrastructure interests in Metro Rail, Airports, Bridges, Toll roads, Defence. It is major share holder in another group company Reliance Power.

c) <u>GMR Infrastructure Ltd</u>

GMR Group is an infrastructural company headquartered in Bangalore. The company was founded in 1978 by Grandhi Mallikarjuna Rao. Employing the Public Private Partnership model, the Group has successfully implemented several iconic infrastructure projects in India. The Group also has a global presence with infrastructure operating assets and projects in several countries including Turkey, South Africa, Indonesia, Singapore, the Maldives and the Philippines.

5.2 Data Analysis:

1. Analysis of Larsen & Toubro Ltd

DATE	MARKET PRICE	FUTURE PRICE
26-Feb-16	1110.65	1116.65
29-Feb-16	1076	1083.15
1-Mar-16	1123.95	1127.55
2-Mar-16	1137.9	1143.2
3-Mar-16	1207.1	1212.05
4-Mar-16	1193.2	1197.8
8-Mar-16	1187.45	1191.55
9-Mar-16	1212.85	1219.6
10-Mar-16	1186.15	1191.45
11-Mar-16	1185.65	1192.5
14-Mar-16	1184.2	1189.65
15-Mar-16	1180.75	1186.55
16-Mar-16	1183.2	1189.65
17-Mar-16	1193.25	1197.65
18-Mar-16	1199.3	1202.7
21-Mar-16	1228.15	1232.15
22-Mar-16	1237.3	1240.45
23-Mar-16	1242.55	1245.25
28-Mar-16	1206.35	1209.9
29-Mar-16	1193.95	1197.65
30-Mar-16	1228.05	1229.75
31-Mar-16	1216.7	1216.7

Table 1: Market price and Future price of L&T

The objective of this analysis is to evaluate the profit/loss position of futures and options. This analysis is based on sample data taken of LARSEN & TOUBRO LTD scrip. This analysis considered the March 2016 contract of L&T. The lot size is 300 and the time period in which this analysis is done is from 26.02.2016 to 31.03.16.
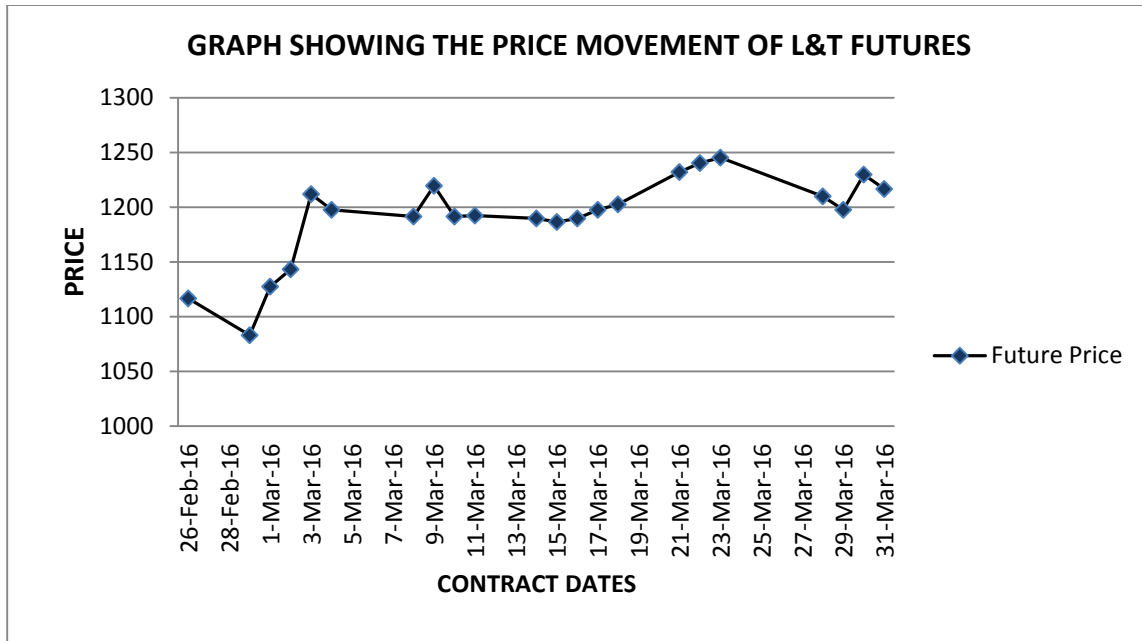
Figure 7: Graph showing price movement of L&T futures

❖ <u>Observations and Findings</u>

If a person buys 1 lot i.e. 300 futures of L&T on 26th Feb, 2016 and sells on 31st Mar, 2016 then he will get a profit of 1216.7- 1116.65 = 100.05 per share. So he will get a total profit of 30015 i.e. 100.05* 300.

The closing price of L&T at the end of the contract period is 1216.7 and this is considered as settlement price.

❖ <u>Call Option</u>

The following table explains the market price and premiums of calls.

➢ The first column explains trading date

➢ Second column explains the SPOT market price in cash segment on that date.

➢ The third column explains call premiums amounting at these strike prices; 1080, 1100, 1120, 1140, 1160 and 1180.

DATE	MARKET PRICE	STRIKE PRICE					
		1080	1100	1120	1140	1160	1180
26-Feb-16	1110.65	65.2	59.25	49	39.75	31.75	25.3
29-Feb-16	1076	45.95	36.95	29.55	23.15	17.65	13.55
1-Mar-16	1123.95	69.5	56.65	44.8	35.15	26.85	20.2
2-Mar-16	1137.9	81.9	66.15	53.45	42.9	33.65	25.8
3-Mar-16	1207.1	134.4	119.7	102.1	86.35	71.75	58
4-Mar-16	1193.2	134.4	104	87.5	75.45	60.4	48.25
8-Mar-16	1187.45	115.6	100.3	85.4	66.25	54.75	43.3
9-Mar-16	1212.85	124.95	125.05	105	87.85	72.7	58
10-Mar-16	1186.15	124.95	96.1	102.4	66.5	53.75	41.6
11-Mar-16	1185.65	124.95	95	79.95	64.9	51.35	39.8
14-Mar-16	1184.2	124.95	94.85	79.95	64.1	48.05	35.3
15-Mar-16	1180.75	115	89.4	78	58.6	44.75	33.5
16-Mar-16	1183.2	105.05	93	73.95	59	45.45	33.35
17-Mar-16	1193.25	105.05	101.05	82.35	59	48.25	35.15
18-Mar-16	1199.3	105.05	103	83	64.6	49.35	35.15
21-Mar-16	1228.15	105.05	131.65	110	93.65	72.45	53.85
22-Mar-16	1237.3	105.05	141	118	98	80.35	63.9
23-Mar-16	1242.55	105.05	142	117.5	104.9	86.4	65.45
28-Mar-16	1206.35	150.05	106.25	85	75	49.25	33.6
29-Mar-16	1193.95	150.05	96	79	57.4	43.1	20.95
30-Mar-16	1228.05	150.05	122.95	108.95	87.75	68.55	49.3
31-Mar-16	1216.7	137.3	116.7	96.3	76.55	56.25	35.95

Table 2: Market price and premium calls at various strike price of L&T

❖ Observations and Findings for Call Option

a) Buyers Pay Off:

➢ Those who have purchased call option at a strike price of 1120, the premium payable is 49.

➢ On the expiry date the spot market price closed at 1216.7. As it is in the money for the buyer and out of the money for the seller, hence the buyer makes profit.

Spot price   1216.7

Strike price   - <u>1120.0</u>

96.7

Premium   - <u>49.0</u>

47.70 x 300= 14310

Buyer Profit = Rs. 14310

Incase spot price increases further, buyer profit also increases.

    b) <u>Sellers Pay Off:</u>

➢   It is in the money for the buyer so it is out of the money for the seller, hence the seller is in loss.

➢   The loss is equal to the profit of buyer i.e. Rs. 14310.

    ❖ <u>Put Option:</u>

The following table explains the market price and premiums of puts.

➢   The first column explains trading date.

➢   Second column explains the SPOT market price in cash segment on that date.

➢   The third column explains put premiums amounting at these strike prices: 1080, 1100, 1120, 1140, 1160, 1180.

DATE	MARKET PRICE	STRIKE PRICE					
		1080	1100	1120	1140	1160	1180
26-Feb-16	1110.65	34.65	43.1	51.9	61.3	74	95.75
29-Feb-16	1076	44.25	53.7	66.15	81.75	95	89
1-Mar-16	1123.95	22.85	29.45	37.8	47.3	60	90
2-Mar-16	1137.9	17.95	23.8	30.8	39.8	50.2	61.3
3-Mar-16	1207.1	6.75	9	12.15	15.8	20.9	27.4
4-Mar-16	1193.2	7	9.55	12.7	17.7	23.5	31.1
8-Mar-16	1187.45	7.15	9.85	13.45	18.3	25	32.4
9-Mar-16	1212.85	4.4	5.6	7.85	10.8	15.05	20.85
10-Mar-16	1186.15	5.55	8.15	11.5	16.1	22.25	30
11-Mar-16	1185.65	4.3	6.65	9.35	13.85	19.55	27.1
14-Mar-16	1184.2	4	6	8.8	12.9	18.95	26.05
15-Mar-16	1180.75	3.75	5.85	8.55	12.8	18.7	26.8
16-Mar-16	1183.2	2.75	4.5	6.8	10.55	16	23.6
17-Mar-16	1193.25	1.85	3.1	4.6	7.25	11.75	18.5
18-Mar-16	1199.3	1.15	1.9	2.6	4.4	7.65	12.85
21-Mar-16	1228.15	0.45	0.9	0.95	1.25	2.15	4.25
22-Mar-16	1237.3	0.2	0.6	0.7	0.75	1.25	2.4
23-Mar-16	1242.55	0.3	0.55	0.6	0.9	1.3	2.1
28-Mar-16	1206.35	0.6	0.9	1.1	1.7	2.7	5.1
29-Mar-16	1193.95	0.3	0.35	0.65	0.95	2.1	5.05
30-Mar-16	1228.05	0.05	0.15	0.25	0.15	0.2	0.35
31-Mar-16	1216.7	0.4	0.05	0.05	0.05	0.05	0.1

Table 3: Market price and premium puts for various strike price of L&T

❖ Observations and Findings for Put Option

a) Buyers Pay Off:

➢ Those who have purchased put option at a strike price of 1160, the premium payable is 74.

➢ On the expiry date the spot market price closed at 1216.7. As it is out of the money for the buyer and in the money for the seller, hence the buyer is in loss.

➢ So the buyer will lose only premium i.e. Rs. 74 per share.

So the total loss will be Rs. 22200 i.e. 74*30

b) <u>Sellers Pay Off:</u>

➢ The seller is entitled only to the premium if he is in the money i.e., in profit.

➢ So his profit is only the premium i.e. 74* 300 = Rs. 22200
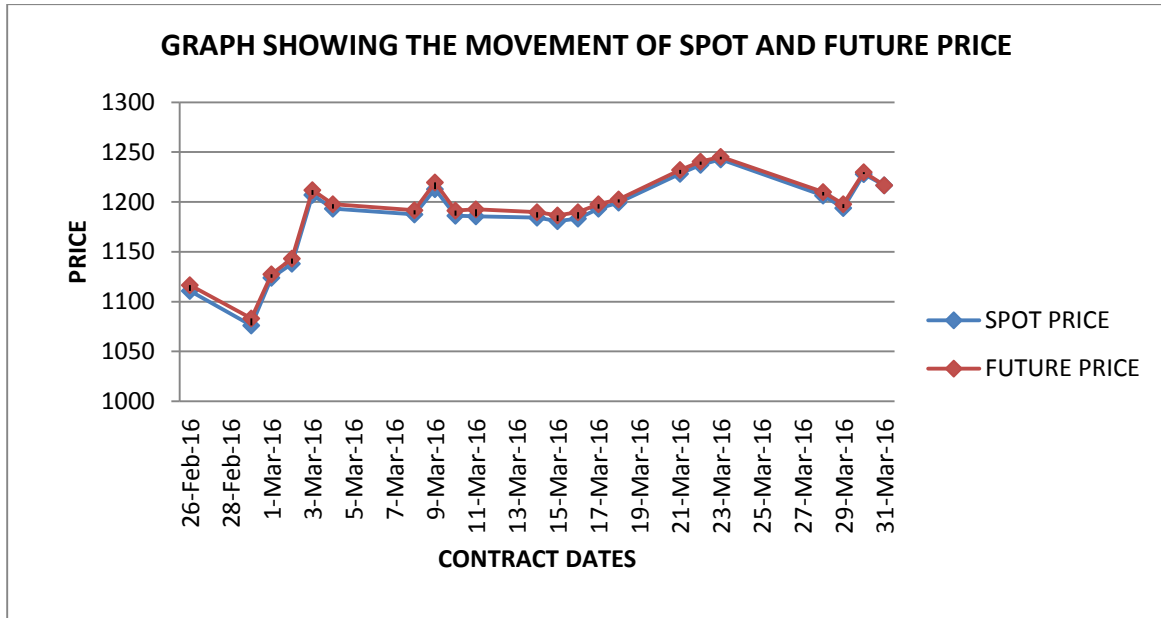
Figure 8: Graph showing movement of spot and future price of L&T

➢ The future price of L&T is moving along with the market price.

➢ If the buy price of the future is less than the settlement price, then the buyer of the future gets profit.

➢ If the selling price of the future is less than the settlement price, then the seller incurs losses.

2. <u>Analysis of Reliance Infrastructure Ltd</u>

The objective of this analysis is to evaluate the profit/loss position of futures and options. This analysis is based on sample data taken of RELIANCE INFRA scrip. This

analysis considered the March 2016 contract of RELINFRA. The lot size is 1300 and the

time period in which this analysis is done is from 26.02.2016 to 31.03.16.

DATE	MARKET PRICE	FUTURE PRICE
26-Feb-16	410.9	411.55
29-Feb-16	409.85	412.55
1-Mar-16	428.9	431.6
2-Mar-16	437.05	439.75
3-Mar-16	460.85	456.8
4-Mar-16	470.9	460.9
8-Mar-16	483.65	468.65
9-Mar-16	515.4	511.25
10-Mar-16	506.85	501
11-Mar-16	504.55	501.65
14-Mar-16	500.7	498.5
15-Mar-16	500.65	501
16-Mar-16	497.05	498.2
17-Mar-16	511.45	505.35
18-Mar-16	510.25	509.7
21-Mar-16	511.85	512.7
22-Mar-16	535.95	536.75
23-Mar-16	536.6	536.55
28-Mar-16	522.6	522.7
29-Mar-16	520.9	523
30-Mar-16	534.35	534.95
31-Mar-16	533.6	533.6

Table 4: Market price and future price of RELINFRA
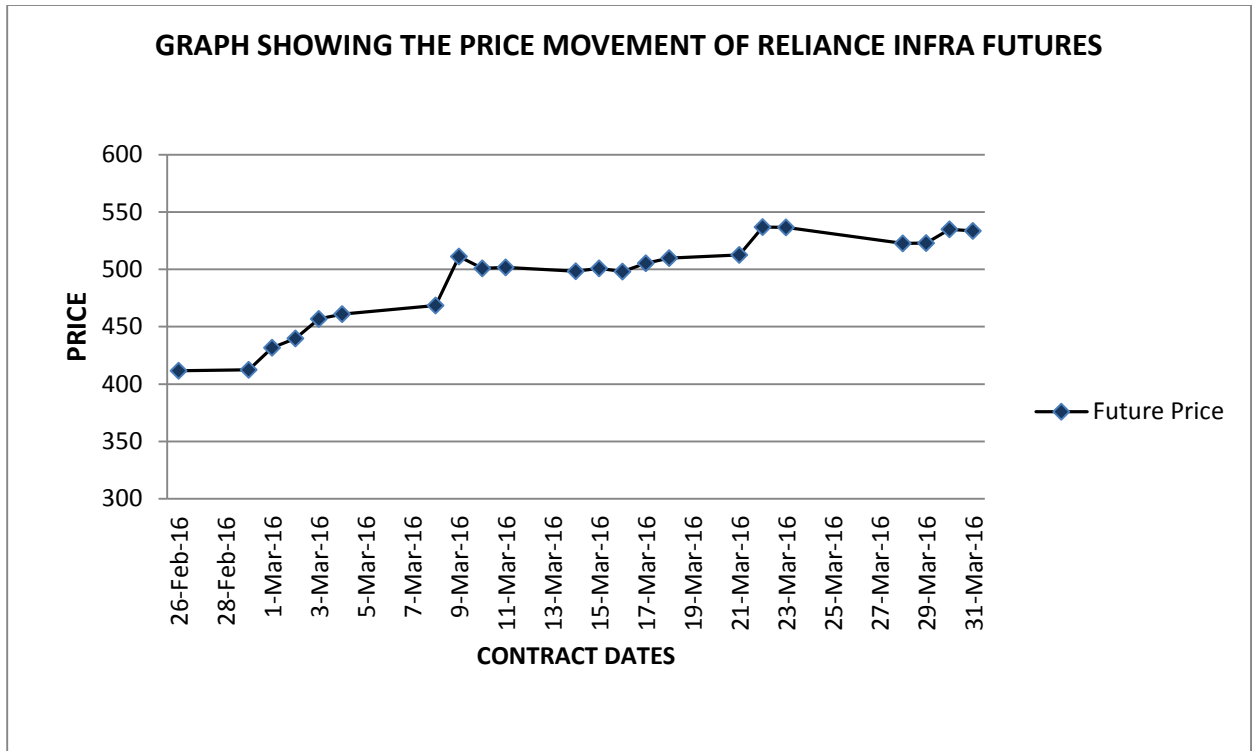
Figure 9: Graph showing price movement of RELINFRA futures

❖ Observations and Findings:

If a person buys 1 lot i.e. 1300 futures of RELINFRA on 26th Feb, 2016 and sells on 31st Mar, 2016 then he will get a profit of 533.6-411.55= 122.05 per share. So he will get a total profit of 158665 i.e. 122.05* 1300

The closing price of RELINFRA at the end of the contract period is 533.6 and this is considered as settlement price.

❖ Call Option

The following table explains the market price and premiums of calls.

➢ The first column explains trading date

➢ Second column explains the SPOT market price in cash segment on that date.

➢ The third column explains call premiums amounting at these strike prices: 400, 410, 420, 430, 440, 450.

DATE	MARKET PRICE	STRIKE PRICE					
		400	410	420	430	440	450
26-Feb-16	410.9	32.55	26.95	22.3	18.25	15	11.8
29-Feb-16	409.85	30.75	23.8	19.45	15.1	12	9.3
1-Mar-16	428.9	39.9	33.6	27.25	21.65	16.9	13.3
2-Mar-16	437.05	48	38.95	33	26.4	21.5	17.25
3-Mar-16	460.85	53.85	38.95	43.6	36.25	29.95	24.1
4-Mar-16	470.9	53.85	54	45.05	39.1	32.6	25.35
8-Mar-16	483.65	74.5	58.4	49.6	45	35	30.7
9-Mar-16	515.4	114.6	72.5	92.7	90	72.9	65.75
10-Mar-16	506.85	111.55	94.95	90.95	87.45	68.6	60.8
11-Mar-16	504.55	111.55	99.05	77	80	64	54
14-Mar-16	500.7	111.55	99.05	80.05	80	60.7	53.95
15-Mar-16	500.65	104.8	99.05	83.55	80	61.8	58.85
16-Mar-16	497.05	84	99.05	70.8	80	61.65	53.6
17-Mar-16	511.45	84	101.9	86.7	80	73	57.6
18-Mar-16	510.25	109	101.9	84.3	80	70	61.25
21-Mar-16	511.85	109	101.9	91.8	82.5	70.85	61.9
22-Mar-16	535.95	109	101.9	107.05	102.45	92.5	81.55
23-Mar-16	536.6	109	101.9	120	110	98	87
28-Mar-16	522.6	109	101.9	115	99	94	78.85
29-Mar-16	520.9	109	101.9	115	94	90	78.85
30-Mar-16	534.35	133.1	101.9	115	106	90	84
31-Mar-16	533.6	133.1	123.25	115	103.1	95.9	84.6

Table 5: Market price and premium calls for various strike price of RELINFRA

❖ Observations and Findings for Call Option

a) Buyers Pay Off:

➢ Those who have purchased call option at a strike price of 420, the premium payable is 22.3.

➢ On the expiry date the spot market price closed at 533.6. As it is in the money for the buyer and out of the money for the seller, hence the buyer makes profit.

Spot price   533.6

Strike price   -   420.0

                      113.6

Premium   -   22.3

                      91.30   x   1300 = 118690

Buyer Profit = Rs. 118690

Incase spot price increases further, buyer profit also increases.

b) <u>Sellers Pay Off:</u>

➢ It is in the money for the buyer so it is out of the money for the seller, hence the seller is in loss.

➢ The loss is equal to the profit of buyer i.e. Rs. 118690.

❖ <u>Put Option</u>

The following table explains the market price and premiums of puts.

➢ The first column explains trading date

➢ Second column explains the SPOT market price in cash segment on that date.

➢ The third column explains put premiums amounting at these strike prices: 400, 410, 420, 430, 440, 450.

DATE	MARKET PRICE	STRIKE PRICE					
		400	410	420	430	440	450
26-Feb-16	410.9	21.15	25.4	30.4	39	48.55	48.75
29-Feb-16	409.85	16.95	21.45	25.7	39	45	48.75
1-Mar-16	428.9	9.2	11.95	16.05	19.8	25	48.75
2-Mar-16	437.05	7.45	9.9	13.05	17.05	21.25	26.45
3-Mar-16	460.85	4	5.4	7.5	10.05	13.5	17.25
4-Mar-16	470.9	3.4	4.7	6.5	8.85	11.8	15.6
8-Mar-16	483.65	2.8	3.7	5.1	6.9	9.25	12.25
9-Mar-16	515.4	1.3	1.75	2.35	3.25	4.1	5.5
10-Mar-16	506.85	1.3	1.45	2.1	2.9	3.95	5.4
11-Mar-16	504.55	1.05	1.5	1.65	2.5	3.4	4.55
14-Mar-16	500.7	1.1	1	1.75	2.3	2.7	4.1
15-Mar-16	500.65	0.7	0.7	0.95	1.85	2	2.95
16-Mar-16	497.05	0.6	0.6	0.9	1.3	1.85	2.85
17-Mar-16	511.45	0.4	0.15	0.45	0.9	1.1	1.6
18-Mar-16	510.25	0.25	0.2	0.3	0.5	0.7	0.95
21-Mar-16	511.85	0.2	0.2	0.2	0.4	0.35	0.65
22-Mar-16	535.95	0.05	0.05	0.05	0.1	0.25	0.3
23-Mar-16	536.6	0.1	0.05	0.05	0.35	0.2	0.25
28-Mar-16	522.6	0.05	0.05	0.05	0.2	0.2	0.2
29-Mar-16	520.9	0.1	0.1	0.05	0.05	0.1	0.1
30-Mar-16	534.35	0.05	0.1	0.05	0.15	0.1	0.1
31-Mar-16	533.6	0.05	0.1	0.05	0.05	0.05	0.05

Table 6: Market price and premium puts for various strike price of RELINFRA

❖ Observations And Findings For Put Option

a) Buyers Pay Off:

➤ Those who have purchased put option at a strike price of 450, the premium payable is 48.75.

➤ On the expiry date the spot market price closed at 533.6. As it is out of the money for the buyer and in the money for the seller, hence the buyer is in loss.

➤ So the buyer will lose only premium i.e. Rs. 48.75 per share.
So the total loss will be Rs. 63375 i.e. 48.75*1300

b) Sellers Pay Off:

➢   The seller is entitled only to the premium if he is in the money i.e., in profit.

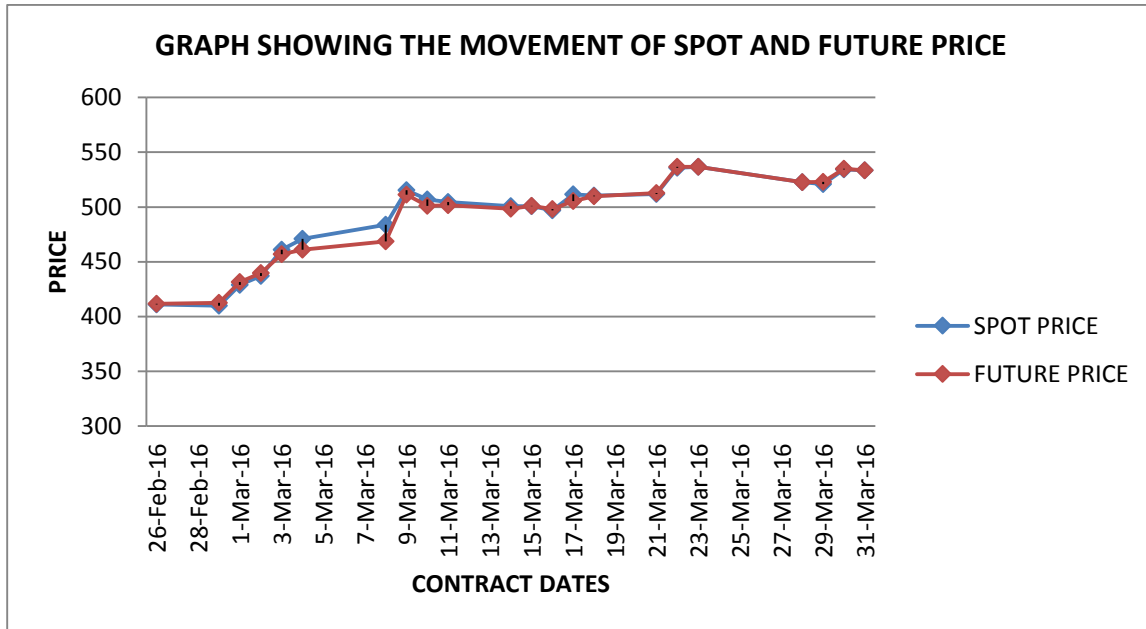➢   So his profit is only the premium i.e. 48.75* 1300 = Rs. 63375

Figure 10: Graph showing movement of spot and future price of RELINFRA

➢ The future price of RELINFRA is moving along with the market price.
➢ If the buy price of the future is less than the settlement price, then the buyer of the future gets profit.
➢ If the selling price of the future is less than the settlement price, then the seller incurs losses.

3. Analysis of GMR Infrastructure Ltd

The objective of this analysis is to evaluate the profit/loss position of futures and options. This analysis is based on sample data taken of GMR INFRA scrip. This analysis considered the March 2016 contract of GMRINFRA. The lot size is 39000 and the time period in which this analysis is done is from 26.02.2016 to 31.03.16.

DATE	MARKET PRICE	FUTURE PRICE
26-Feb-16	11.15	11.3
29-Feb-16	10.9	11
1-Mar-16	11.4	11.5
2-Mar-16	11.55	11.65
3-Mar-16	11.6	11.75
4-Mar-16	11.85	11.95
8-Mar-16	12	12.1
9-Mar-16	12.15	12.25
10-Mar-16	11.85	11.95
11-Mar-16	11.85	11.95
14-Mar-16	11.55	11.65
15-Mar-16	11.6	11.7
16-Mar-16	11.65	11.8
17-Mar-16	11.55	11.6
18-Mar-16	11.55	11.6
21-Mar-16	11.8	11.9
22-Mar-16	12	12
23-Mar-16	11.75	11.8
28-Mar-16	11.4	11.45
29-Mar-16	11.3	11.35
30-Mar-16	11.5	11.55
31-Mar-16	11.6	11.6

Table 7: Market and Future price of GMRINFRA
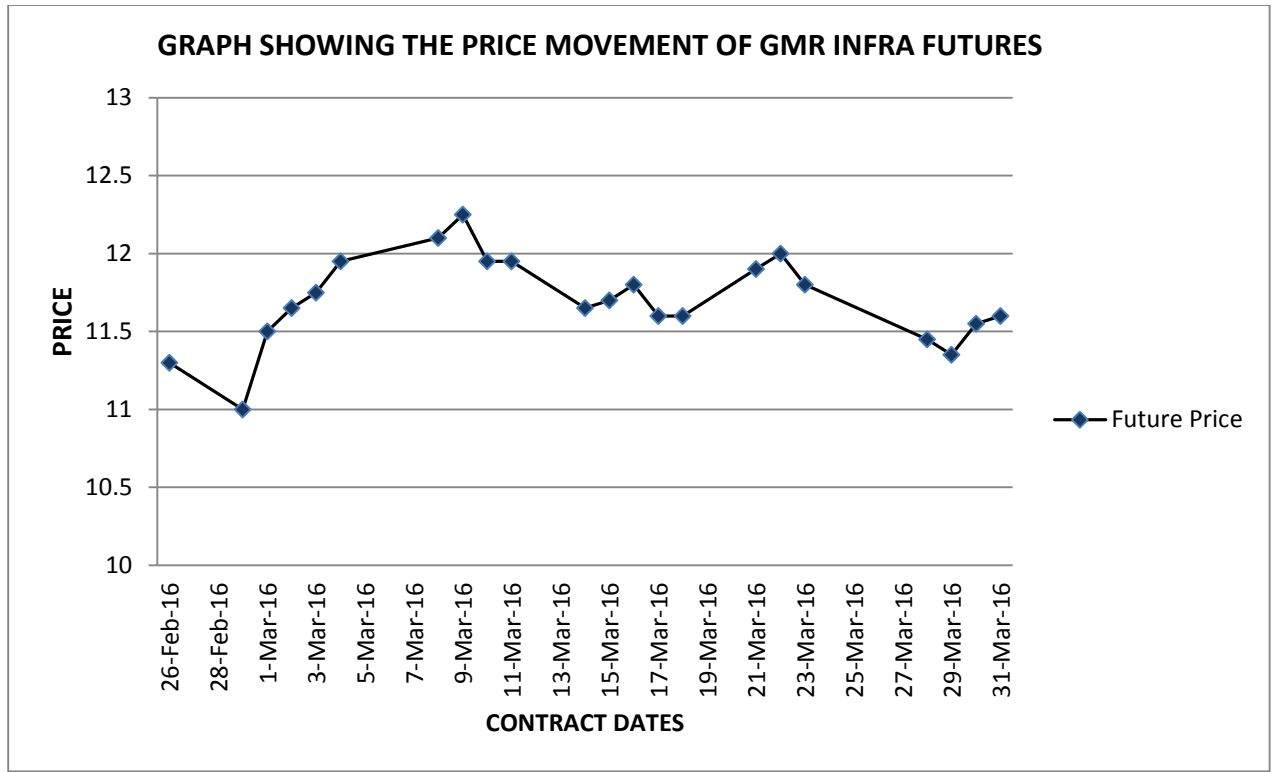
Figure 11: Graph showing price movement of GMRINFRA futures

❖ Observations and Findings:

If a person buys 1 lot i.e. 39000 futures of GMRINFRA on 26th Feb, 2016 and sells on 31st Mar, 2016 then he will get a profit of 11.6-11.3= 0.3 per share. So he will get a total profit of 11700 i.e. 0.3* 39000.

The closing price of GMRINFRA at the end of the contract period is 11.6 and this is considered as settlement price.

❖ Call Option

The following table explains the market price and premiums of calls.

➢   The first column explains trading date

➢   Second column explains the SPOT market price in cash segment on that date.

➢   The third column explains call premiums amounting at these strike prices: 10, 12.5, 15, 17.5, 20 and 22.5.

DATE	MARKET PRICE	STRIKE PRICE					
		10	12.5	15	17.5	20	22.5
26-Feb-16	11.15	1.65	0.5	0.15	0.05	0.05	0.75
29-Feb-16	10.9	1.35	0.35	0.1	0.05	0.05	0.75
1-Mar-16	11.4	1.7	0.4	0.1	0.05	0.05	0.75
2-Mar-16	11.55	1.9	0.45	0.1	0.05	0.05	0.75
3-Mar-16	11.6	1.95	0.45	0.1	0.05	0.05	0.75
4-Mar-16	11.85	1.95	0.5	0.15	0.05	0.05	0.75
8-Mar-16	12	2.15	0.55	0.15	0.05	0.05	0.75
9-Mar-16	12.15	2.35	0.6	0.15	0.05	0.05	0.75
10-Mar-16	11.85	2	0.45	0.1	0.05	0.05	0.75
11-Mar-16	11.85	2	0.4	0.1	0.05	0.05	0.75
14-Mar-16	11.55	2	0.3	0.05	0.05	0.05	0.75
15-Mar-16	11.6	1.7	0.3	0.05	0.05	0.05	0.75
16-Mar-16	11.65	2	0.3	0.05	0.05	0.05	0.75
17-Mar-16	11.55	2	0.2	0.05	0.05	0.05	0.75
18-Mar-16	11.55	2	0.2	0.05	0.05	0.05	0.75
21-Mar-16	11.8	2	0.2	0.05	0.05	0.05	0.75
22-Mar-16	12	2	0.2	0.05	0.05	0.05	0.75
23-Mar-16	11.75	2	0.1	0.05	0.05	0.05	0.75
28-Mar-16	11.4	1.55	0.05	0.05	0.05	0.05	0.75
29-Mar-16	11.3	1.4	0.05	0.05	0.05	0.05	0.75
30-Mar-16	11.5	1.55	0.05	0.05	0.05	0.05	0.75
31-Mar-16	11.6	1.6	0.05	0.05	0.05	0.05	0.75

Table 8: Market price and premium calls at various strike price of GMRINFRA

❖ Observations and Findings For Call Option

a) Buyers Pay Off:

➢   Those who have purchased call option at a strike price of 15, the premium payable is 0.15.

➢   On the expiry date the spot market price closed at 11.6. As it is out of the money for the buyer and in the money for the seller, hence the buyer is in loss.

- ➢ So the buyer will lose only premium i.e. 0.15 per share.

  So the total loss will be Rs. 5850 i.e. 0.15*39000

  b) Sellers Pay Off:

- ➢ The seller is entitled only to the premium if he is in the money i.e. in profit.
- ➢ So his profit is only premium i.e. 0.15* 39000 = Rs. 5850

❖ Put Option

DATE	MARKET PRICE	STRIKE PRICE					
		10	12.5	15	17.5	20	22.5
26-Feb-16	11.15	0.35	1.65	3.75	6.1	8.5	6.45
29-Feb-16	10.9	0.4	1.85	3.75	6.1	8.5	6.45
1-Mar-16	11.4	0.3	1.35	3.6	6.1	8.5	6.45
2-Mar-16	11.55	0.25	1.25	3.45	6.1	8.5	6.45
3-Mar-16	11.6	0.25	1.2	3.45	6.1	8.5	6.45
4-Mar-16	11.85	0.15	1.15	3.45	6.1	8.5	6.45
8-Mar-16	12	0.2	0.95	3.45	6.1	8.5	6.45
9-Mar-16	12.15	0.1	0.85	2.8	6.1	8.5	6.45
10-Mar-16	11.85	0.15	1	3.1	6.1	8.5	6.45
11-Mar-16	11.85	0.15	0.95	3.1	6.1	8.5	6.45
14-Mar-16	11.55	0.15	1.15	3.1	6.1	8.5	6.45
15-Mar-16	11.6	0.15	1.05	3.1	6.1	8.5	6.45
16-Mar-16	11.65	0.15	1.1	3.1	6.1	8.5	6.45
17-Mar-16	11.55	0.1	1.15	3.25	6.1	8.5	6.45
18-Mar-16	11.55	0.05	1.05	3.25	6.1	8.5	6.45
21-Mar-16	11.8	0.05	0.9	3.25	6.1	8.5	6.45
22-Mar-16	12	0.05	0.9	3.1	6.1	8.5	6.45
23-Mar-16	11.75	0.05	0.75	3.1	6.1	8.5	6.45
28-Mar-16	11.4	0.05	1.15	3.1	6.1	8.5	6.45
29-Mar-16	11.3	0.05	1.15	3.1	6.1	8.5	6.45
30-Mar-16	11.5	0.05	1	3.55	6.1	8.55	6.45
31-Mar-16	11.6	0.05	0.9	3.4	5.9	8.45	6.45

Table 9: Market price and premium put for various strike price of GMRINFRA

❖ Observations And Findings For Put Option

a) Buyers Pay Off:

  ❖ Those who have purchased put option at a strike price of 22.5, the premium payable is 6.45.

  ❖ On the expiry date the spot market price closed at 11.6. As it is in the money for the buyer and out of the money for the seller, hence the buyer makes profit.

<div align="center">

Strike price   22.50

Spot price   - <u>11.60</u>

10.90

Premium   - <u>6.45</u>

4.45x 39000= 173550

Buyer Profit = Rs. 173550

</div>

In case spot price decreases further, buyer's profit will increase.

b) Sellers Pay Off:

➢   It is in the money for the buyer so it is out of the money for the seller, hence the seller is in loss.

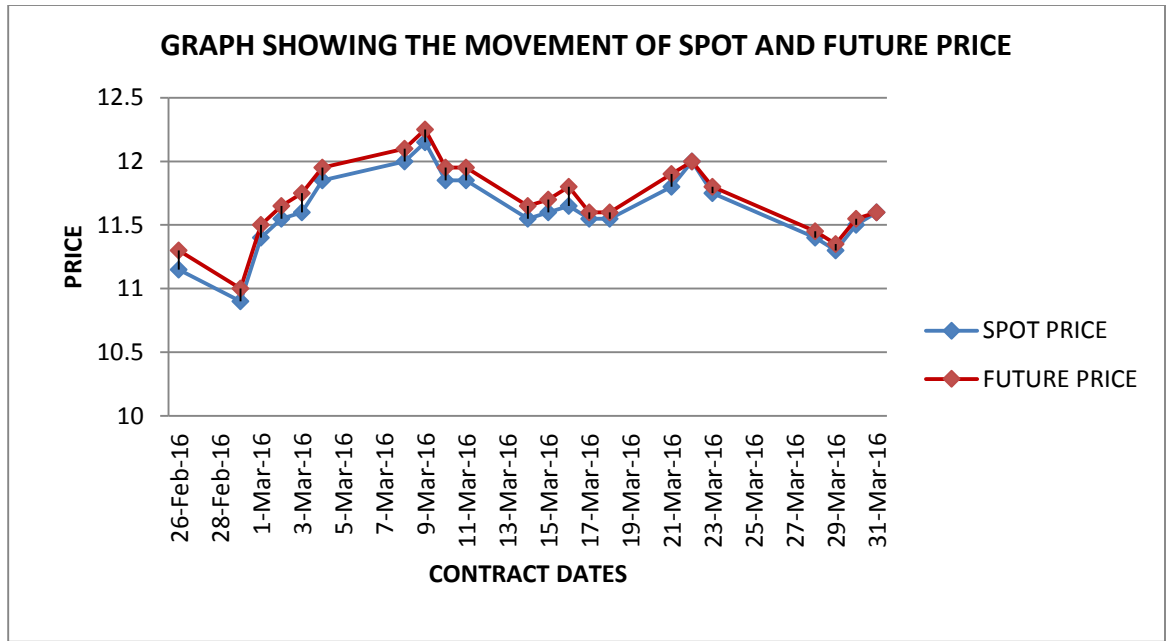➢   The loss is equal to the profit of buyer i.e. Rs. 173550.

GRAPH SHOWING THE MOVEMENT OF SPOT AND FUTURE PRICE

Figure 12: Graph showing movement of spot and future price of GMRINFRA

➢ The future price of GMRINFRA is moving along with the market price.

➢ If the buy price of the future is less than the settlement price, then the buyer of the future gets profit.

➢ If the selling price of the future is less than the settlement price, then the seller incurs losses.

6. Conclusion, Recommendations and Limitations:

6.1 Conclusion

➢ In derivative segment the profit/loss of the option writer purely depends on the fluctuations of the underlying asset.

➢ In bullish market the call option writer incurs more losses so the investor is suggested to go for a call option to hold, where as the put option holder suffers in a bullish market, so he is suggested to write a put option.

➢ In bearish market the call option holder will incur more losses so the investor is suggested to go for a call option to write, where as the put option writer will get more losses, so he is suggested to hold a put option.

6.2 Recommendations:

➢ The derivatives market is newly started in India and it is not known by every investor, so SEBI has to take steps to create awareness among the investors about the derivative segment.

➢ In order to increase the derivatives market in India, SEBI should revise some of their regulations like contract size, participation of FII in the derivatives market.

➢ Contract size should be minimized because small investors cannot afford this much of huge premiums.

6.3 Limitations of the Study:

➢ The study is limited to "Derivatives" with special reference to futures and options in the infrastructure sector.

➢ The data collected is completely restricted to the stocks of L&T Ltd, Reliance Infrastructure Ltd and GMR Infrastructure Ltd during March 2016. Hence this analysis cannot be taken universal.

➢ Also, it is not based on the international perspective of derivatives markets, which exists in NASDAQ, etc. It is limited to Indian context only.

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ADHERENCE SHEET

Particulars	Last Date	Signature of Mentors	
Title of the Project/Area of Topic Finalization	21-Jan-16		
Literature Review/Objectives of the study	2-Feb-16		
Methodology	18-Feb-16		
Questionnaire/Data Collection tools	3-Mar-16		
Data Collection	17-Mar-16		
Analysis	24-Mar-16		
Conclusion and Recommendations	1-Apr-16		
First Draft	15-Apr-16		
Final Report/Binding and Submission	3-May-16		