



A STUDY ON CHANGES IN FUTURE PRICE MOVEMENTS AT NATIONAL STOCK EXCHANGE (WITH SPECIAL REFERENCE TO BANKING SECTOR)

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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 the risk-averse economic agents to guard themselves against uncertainties arising out of fluctuation in asset prices. The main Objective of the study is to know the changes in the value of futures of selected banks (ICICI, HDFC, Axis, Canara and Indusind Banks). Secondary sources of the data is used for the study. The scope of the study is limited to “derivatives” with special reference to Changes in Future price movements in Banking Sector and the inter-connected stock exchange (N.S.E) have been taken as a representative sample for the study. The findings of the study is the market price of ICICI is having low volatility, so the futures of investors to enjoy the more profits. 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.

Key Words: Share Prices, Stock Markets, Stock Price Movements Prediction, Futures, Derivatives, National Stock Exchange.



Introduction

Most of financial derivatives trading activities begin extensively during services as recently as 1973 with the introduction of foreign exchange which was following by the interest rate futures in 1975, stock index futures in 1982 and so on. Derivatives today have become international level. They influenced all most every aspect of the capital and money markets all over the world ranging from investing rising of funds and managing the risk.

The emergence of the market for derivatives products, most notably forwards, futures and options, can be traced back to the willingness of the risk-averse economic agents to guard themselves against uncertainties arising out of fluctuation in asset prices. By their very nature the financial markets marked by a very degree of volatility. Through the use of derivative products, it is possible to partially or fully transfer price risk by looking in asset prices. Due to globalization and liberalization process initiated by the state all over the world the international trade and the financial activities have grown in multifold resulting into rising level of all risk for market participants such as market risk, interest risk, foreign exchange rate risk, inflation risk and price risk managing the all these risks is essential and significant to be successful in financial and trading activities. Financial derivatives like futures emerged in the financial markets to handle and managed such risk new products and strategies are being developed at the past rate in order to cope with the changing environment.

The SCRA (security contracts regulation act) was amended in December 1999 to include derivatives in within the admit of securities and regularity framework was developed for governing derivatives trading. Derivatives trading commenced in India in June 2000, after SEBI granted the final approval to this effect in May 2000. SEBI permitted the derivative segment of stock exchanges NSE and BSE and their clearing house to commence trading and settlement in prove derivatives contacts. The NSEIL has been setup to provide nation-wide screen based trading facility to investors. It is a significant move towards upgrading trading facilities available in the country and India financial markets in line with international markets. NSE operations on the “National Exchange of Automated Trading” (NEAT-F&O) System, a



fully automated screen based trading system adopting the principles of an order driven market and enabling trading members to trade directly come their office through a sophisticated telecommunication network.

Over the years financial markets have seen increased volatility. The major contributor to this is the increased trading turnovers in the derivatives markets. Moreover there has been an integration of national financial markets with the international markets. marked improvements in communication facilities and sharp decline in their costs have also paved the way for increased trading volumes throughout the county

Futures

“It is a contract is agreement between two parties namely buyer and seller to buy and sell a specific asset in which the price fixed at future and delivery in future dates”.

Price Movements of Futures

The futures prices changes every because of market forces. By this we mean that stock prices changes because of “supply” and “demand”. If more people want to buy a stock (demand) of futures than sell it (supply) then the prices moves up conversely, if more people wanted to sell a futures than to buy it, there would be greater supply than demand, and the price would fall (basics of economics). Understanding supply and demand is easy. What is difficult to understand is what makes people like a particular stock and dislike another stock. If investor is able to understand this he can know what people are buying and what people are selling, if he knows this he know what price goes up and what price goes down.

The price movements are classified into two types

1. Buyer – payoff.
2. Seller – payoff.

Buyer-Payoff

CASE 1:- The buyer bought the future, if the future price goes up than the buyer gets the profit.

CASE 2:- The buyer bought the future, if the future price goes down than the buyer gets the loss.

Seller-Payoff



CASE 1:- The seller sells the future, if the future price goes down than the seller gets the profit.

CASE 2:- The seller sells the future, if the future price goes up than the seller gets the loss.

Review of Literature

- GopiKrishna Suvanam & Amit Trivedi¹, in their research paper is to study of effect of hedging of structured products on exchange traded equity products. They concluded that hedging would be volatility supportive in a sell off and would be volatility suppressing in significant rally. And suggested introduction of some new exchange products that would make the hedging process easy and also would help some retail investors express their view in a better fashion without the transaction costs involved in structured products.
- Elsevier B.V (2014)² conducted a study with objective is that the price volatility of the existing contract would reduce after the new once come into market The future market is developed for 20 years. In that the future market participant inclines to pay attention to the volatility of future prices. The author uses in this study “EGRACH” model to research. The author concludes that the emergence of new contracts has reduced the volatility of existing contract under the conditions that no systematic crisis happens.
- Snehal Bandivadekar and Saurabh Ghosh³ conducted a study entitled “a study on derivatives and volatility on Indian stock markets”. The author says the cash market volatilities in 2 types By comparing cash market volatilities during the pre-and post-futures options trading eras. By evaluating the impact of options and futures trading on the behavior of cash markets. The author analysis the derivative products lead to an increase or decrease in the spot market volatility. In this study the author “GARCH” mode has been used to empirically evaluate the effects on volatility of Indian spot market. The author concludes that the volatility in B.S.E SENSEX and S&P CNX, NIFTY has declined in the period after index future was introduced.
- Yauheniya Shynkerich, T.M. Mc Ginnity⁴, The author says the forecasting models based on information derived from news have been recently developed and researched. In this author



studies how the results of financial forecasting can be improved with different levels of relevance to the target stock are used. The author says that the system provide a huge amount of textual data to capital market traders. The author concludes that the usage of financial news categories can provide an advantage in financial prediction system based on news.

- Y. Shynkevich, This research paper studies how the results of financial forecasting can be improved when news articles with different levels of relevance to the target stock are used simultaneously. Integration of information extracted from five categories of news articles partitioned by sectors and industries is performed using the multiple kernels learning technique for predicting price movements.

Need of the Study

Markets for financial derivatives have grown tremendously recent years, both in terms of variety of instruments available and turnover. Many broking companies have emerged only after the start of trading in futures. It is important to known about price movement of futures and investor responsiveness and performance of various future commodities.

Objectives of the Study

- To study the procedure of derivative market in futures.
- To analyze price behaviour of futures using future pricing technique.
- To find the profit or loss position of futures to words buyer and seller.
- To know the changes in the value of futures of selected banks (ICICI, HDFC, Axis, Canara and Indusind Banks).

Scope of the Study

The scope of the study is limited to “derivatives” with special reference to Changes in Future price movements in Banking Sector and the inter-connected stock exchange (N.S.E) have been takes as a representative sample for the study

Secondary Data

The research study focuses on secondary data. Secondary Data is collected from Research Articles, Text Books, Official website of National Stock Exchange, journals and news papers.



Sample Size

One month data was collected as

1. Daily data from N.S.E (products-futures).
2. Daily open and close price of 5 banks related to futures.

Tools for Analysis

1. Various graphs and tables.
2. Future pricing techniques.

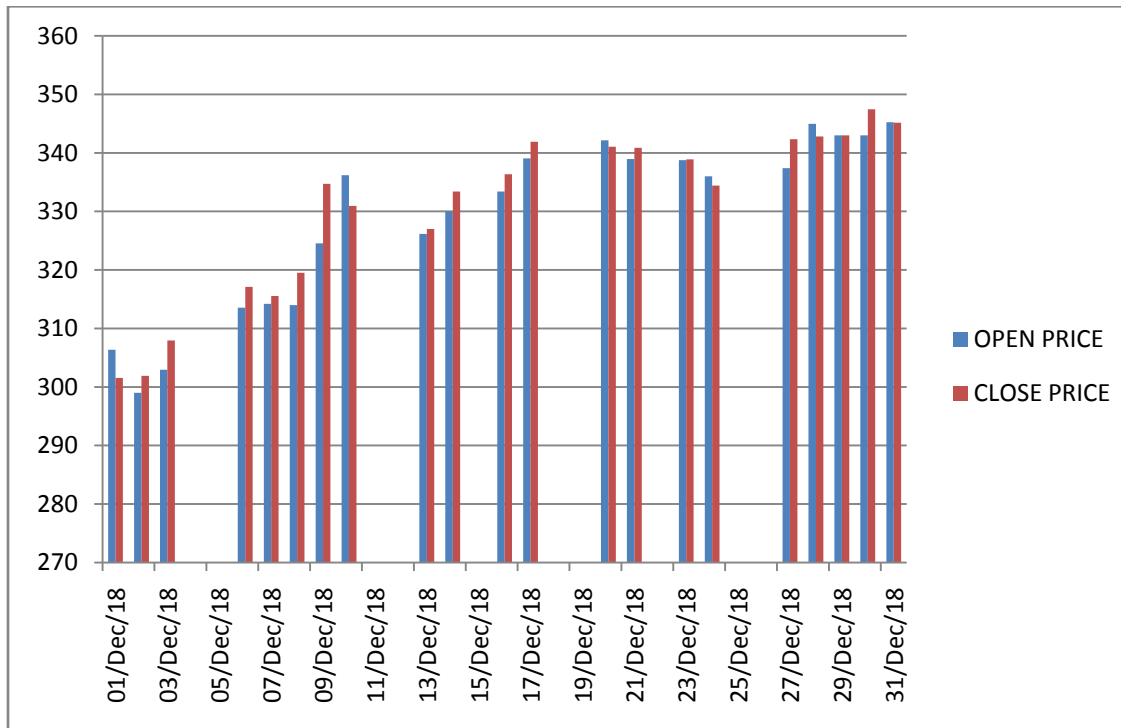
Analysis of Future Price Movements

The objective of this analysis is to evaluate the price movements of futures. The analysis based on the sample data taken of five banks (ICICI, HDFC, AXIS, CANARA and INDUSIND BANKS). This analysis considered the “DECEMBER” contract of five banks. The time period in which this analyzed done is from 01-Dec-2018 to 31-Dec-2018.

ICICI Bank Future Prices

Date	Open Price	Close Price	Variation in Prices
01- Dec -2018	306.35	301.55	-4.80
02- Dec -2018	299.00	301.90	2.90
03- Dec -2018	302.95	307.95	5.00
06- Dec -2018	313.55	317.10	3.55
07- Dec -2018	314.20	315.55	1.35
08- Dec -2018	314.00	319.50	4.50
09- Dec -2018	324.55	334.70	10.15
10- Dec -2018	336.20	330.95	6.75
13- Dec -2018	326.15	327.00	0.85
14- Dec -2018	330.00	333.40	3.40
16- Dec -2018	333.40	336.35	2.95
17- Dec -2018	339.05	341.90	2.85
20- Dec -2018	342.15	341.05	-1.10
21- Dec -2018	338.95	340.85	1.90
23- Dec -2018	338.75	338.90	0.15
24- Dec -2018	336.00	334.40	-2.40
27- Dec -2018	337.40	342.35	4.95
28- Dec -2018	344.95	342.80	-2.15
29- Dec -2018	343.00	343.00	0.00
30- Dec -2018	343.00	347.45	3.45
31- Dec -2018	345.25	345.15	-0.15

Graph



Interpretation of ICICI Bank:

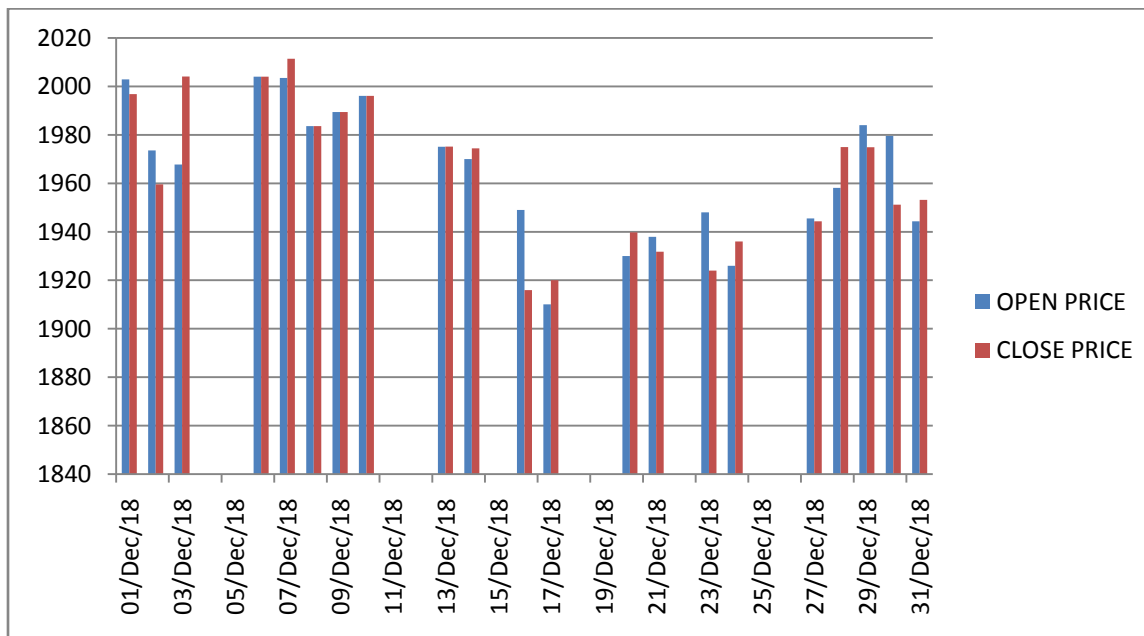
1. The above graph shows opening and closing prices of futures contract related to ICICI Bank from 01- Dec -2018 to 31- Dec-2018.
2. On 29- Dec -2018 the opening and closing price are equal hence it is the position of break even to the investor.
3. On 09- Dec -2018 the opening price of futures is 324.55 where the investor gets huge returns.
4. On 01- Dec -2018 the investor faced heavy loss due to high reduces in a price that is -4.80.
5. There is high volatility in prices of ICICI in the month of December it has increased from 304-345.



HDFC Bank Future Prices:

Date	Open Price	Close Price	Variation in Prices
01- Dec -2018	2002.90	1996.80	-6.10
02- Dec -2018	1973.60	1959.55	-14.05
03- Dec -2018	1967.75	2004.10	36.35
06- Dec -2018	2004.00	2004.00	0.00
07- Dec -2018	2003.50	2011.40	7.90
08- Dec -2018	1983.60	1983.60	0.00
09- Dec -2018	1989.40	1989.40	0.00
10- Dec -2018	1996.10	1996.10	0.00
13- Dec -2018	1975.10	1975.15	0.05
14- Dec -2018	1970.00	1974.45	4.45
16- Dec -2018	1949.00	1915.95	-33.05
17- Dec -2018	1910.05	1920.00	9.95
20- Dec -2018	1930.00	1939.80	9.80
21- Dec -2018	1937.90	1931.75	-6.15
23- Dec -2018	1948.00	1924.00	-24.00
24- Dec -2018	1926.00	1936.00	10.00
27- Dec -2018	1945.50	1944.35	-1.15
28- Dec -2018	1958.10	1974.95	16.85
29- Dec -2018	1984.00	1974.90	-9.20
30- Dec -2018	1979.60	1951.20	-28.4
31- Dec -2018	1944.30	1953.20	8.9

Graph





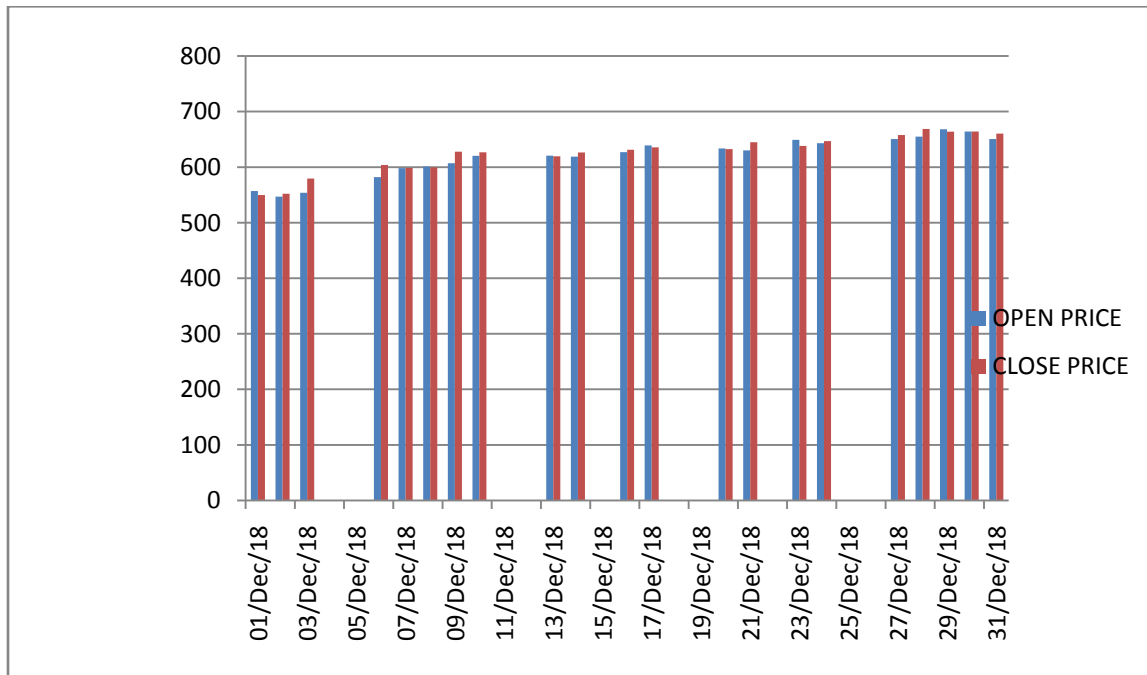
Interpretation of HDFC Bank

1. The above graph shows opening and closing prices of futures contract related to HDFC Bank from 01- Dec -2018 to 31- Dec -2018.
2. On 6th, 8th, 9th, 10- Dec -2018 the opening and closing price are equal hence it is the position of break even to the investor.
3. On 03- Dec -2018 the opening price of futures is 1967.55 where the investor gets huge returns.
4. On 16- Dec -2018 the investor faced heavy loss due to high reduces in a price that is -33.05.
5. There is high volatility in prices of HDFC in the month of December it has decreased from 2002-1953.

AXIS Bank Future Prices

Date	Open Price	Close Price	Variation in Prices
01- Dec -2018	556.95	549.80	-7.15
02- Dec -2018	547.00	552.15	5.15
03- Dec -2018	553.85	579.55	25.70
06- Dec -2018	582.00	604.00	22.00
07- Dec -2018	598.25	598.55	0.30
08- Dec -2018	601.00	599.50	-1.50
09- Dec -2018	607.00	627.90	20.90
10- Dec -2018	620.30	626.60	6.30
13- Dec -2018	620.50	619.50	-1.00
14- Dec -2018	618.80	626.40	7.60
16- Dec -2018	627.00	631.20	4.20
17- Dec -2018	639.00	635.50	-3.50
20- Dec -2018	633.50	632.50	-1.00
21- Dec -2018	630.00	644.70	14.70
23- Dec -2018	649.00	638.20	-0.80
24- Dec -2018	643.00	646.90	3.90
27- Dec -2018	650.55	657.70	7.15
28- Dec -2018	654.90	668.70	14.20
29- Dec -2018	668.05	663.75	-4.30
30- Dec -2018	664.10	664.15	0.05
31- Dec -2018	650.40	660.25	10.15

Graph



Interpretation of AXIS Bank

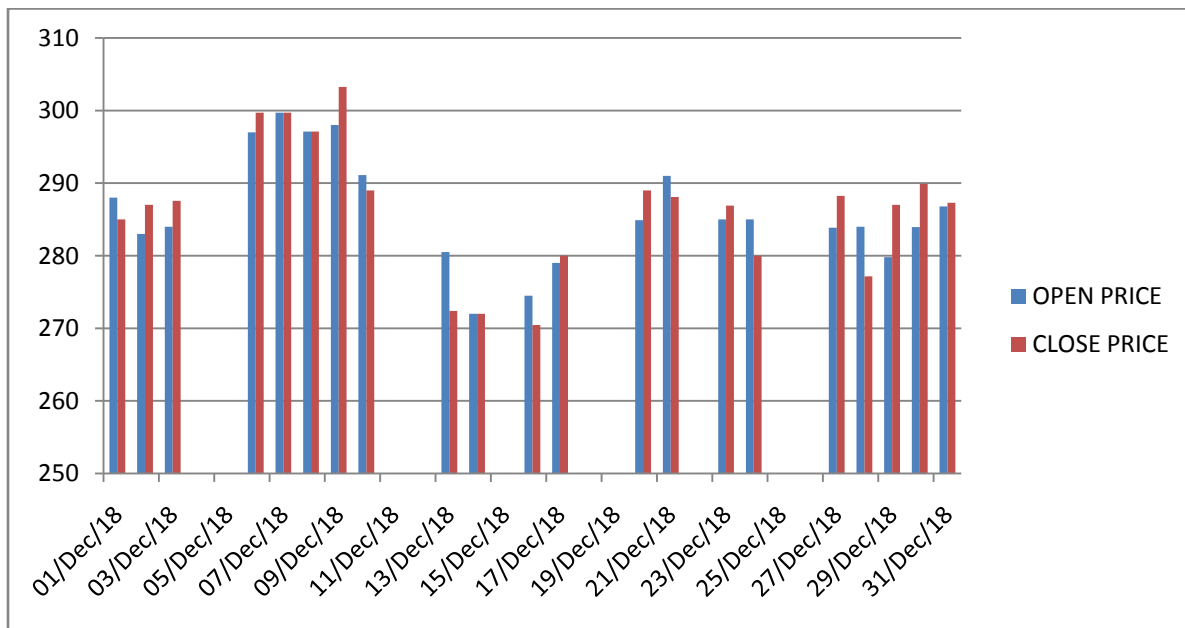
1. The above graph shows opening and closing prices of futures contract related to AXIS Bank from 01- Dec -2018 to 31- Dec -2018.
2. On 30- Dec -2018 the opening and closing price are equal hence it is the position of break even to the investor.
3. On 03- Dec -2018 the opening price of futures is 553.85 where the investor gets huge returns.
4. On 01- Dec -2018 the investor faced heavy loss due to high reduces in a price that is -7.15.
5. There is high volatility in prices of AXIS in the month of December it has increased from 556-660.



Canara Bank Future Prices

Date	Open Price	Close Price	Variation in Prices
01- Dec -2018	288.00	285.00	-3.00
02- Dec -2018	283.00	287.00	4.00
03- Dec -2018	284.00	287.55	3.55
06- Dec -2018	297.00	299.70	2.70
07- Dec -2018	299.70	299.70	0.00
08- Dec -2018	297.10	297.10	0.00
09- Dec -2018	298.00	303.25	5.25
10- Dec -2018	291.10	289.00	-2.10
13- Dec -2018	280.50	272.40	-8.10
14- Dec -2018	272.00	272.00	0.00
16- Dec -2018	274.50	270.45	-4.05
17- Dec -2018	279.00	280.00	1.00
20- Dec -2018	284.90	289.00	4.10
21- Dec -2018	291.00	288.10	2.90
23- Dec -2018	285.00	286.90	1.90
24- Dec -2018	285.00	280.00	-5.00
27- Dec -2018	283.85	288.25	-4.40
28- Dec -2018	284.00	277.15	-6.85
29- Dec -2018	279.80	287.00	7.20
30- Dec -2018	283.95	289.90	5.95
31- Dec -2018	286.80	287.30	0.50

Graph



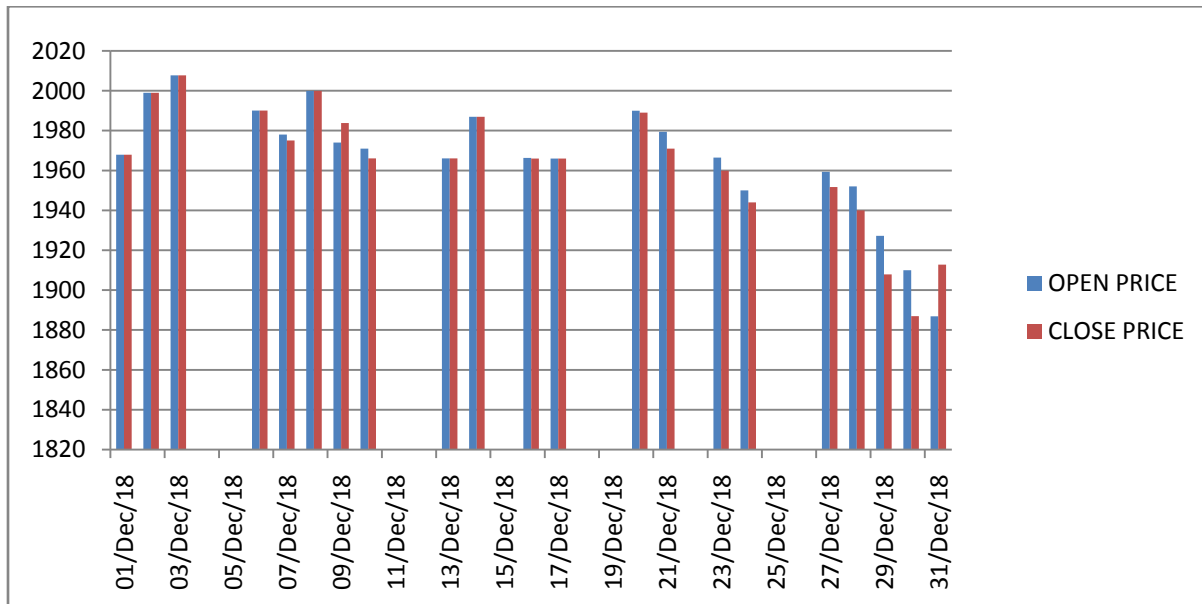
**Interpretation of Canara Bank:**

1. The above graph shows opening and closing prices of futures contract related to CANARA Bank from 01- Dec -2018 to 31- Dec -2018.
2. On 7th, 8th, 14- Dec -2018 the opening and closing price are equal hence it is the position of break even to the investor.
3. On 29- Dec -2018 the opening price of futures is 279.80 where the investor gets huge returns.
4. On 13- Dec -2018 the investor faced heavy loss due to high reduces in a price that is -8.10.
5. There is high volatility in prices of CANARA in the month of December it has decreased from 288-287.

Indusind Bank Future Prices

Date	Open Price	Close Price	Variation in Prices
01- Dec -2018	1967.90	1967.90	0.00
02- Dec -2018	1999.00	1999.00	0.00
03- Dec -2018	2007.70	2007.70	0.00
06- Dec -2018	1990.05	1990.05	0.00
07- Dec -2018	1978.00	1975.05	-2.95
08- Dec -2018	1999.95	1999.95	0.00
09- Dec -2018	1974.00	1983.80	9.80
10- Dec -2018	1971.00	1966.05	-4.95
13- Dec -2018	1966.05	1966.05	0.00
14- Dec -2018	1986.90	1986.90	0.00
16- Dec -2018	1966.30	1966.00	-0.30
17- Dec -2018	1966.00	1966.00	0.00
20- Dec -2018	1990.00	1989.00	-1.00
21- Dec -2018	1979.35	1971.00	8.35
23- Dec -2018	1966.50	1959.85	-6.65
24- Dec -2018	1950.00	1944.00	-6.00
27- Dec -2018	1959.30	1951.70	-7.60
28- Dec -2018	1952.00	1940.00	-12.00
29- Dec -2018	1927.20	1907.90	-19.30
30- Dec -2018	1910.00	1886.90	-23.10
31- Dec -2018	1886.85	1912.75	25.90

Graph



Interpretation of Indusind Bank

1. The above graph shows opening and closing prices of futures contract related to INDUSIND Bank from 01- Dec -2018 to 31- Dec -2018.
2. On 1st, 2nd, 3rd, 4th, 6th, 13th, 14th, 17- Dec -2018 the opening and closing price are equal hence it is the position of break even to the investor.
3. On 31- Dec -2018 the opening price of futures is 1886.85 where the investor gets huge returns.
4. On 30- Dec -2018 the investor faced heavy loss due to high reduces in a price that is -23.10.
5. There is high volatility in prices of INDUSIND in the month of December it has decreased from 1967-1912.

Findings of the Study

1. On 01- Dec -2018 there is higher negative variation in future price of ICICI that is -4.80.
2. On 09- Dec -2018 the investor enjoy the huge of returns on ICICI futures because there is high income in price.



3. On 16- Dec -2018 there is high decrease price of HDFC. The investor faces huge loss on HDFC futures.
4. On 03- Dec -2018 the investor gets more returns on HDFC futures.
5. From above analysis it is observed that there is slight increase in the price of AXIS bank on 30- Dec -2018 where investor gets modern rate returns.
6. Opening and closing prices of CANARA bank futures in the month 08- Dec -2018 is 288.00 and 287.00 there is minimum fall in the prices of future.
7. Investor enjoyed minimum returns with INDUSIND bank because there are no more variations in the prices.
8. From above analysis it is observed that the investor enjoys maximum returns when he invests in ICICI bank.

Suggestions

1. The market price of ICICI is having low volatility, so the futures of investors to enjoy the more profits.
2. 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.
3. 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.
4. Contract size should be minimized because small investors cannot afford this much of huge premiums.
5. SEBI has to take further steps in the risk management mechanism.
6. SEBI has to take measures to use effectively the derivatives segment as a tool of hedging.

Conclusion

1. Derivates market is an innovation to cash market. Appropriately its daily turnover reaches to the equal stage of cash market. The average each day turnover of the NSE derivative segments



2. In cash market the profit/loss of the investor depended on the market price of the underlying asset. The investor might also incur massive earnings or he may additionally incur massive income or he may incur massive loss. But in derivatives phase the investor the investor enjoys massive income with limited downside.
3. In cash market the investor has to pay the total money, but in derivatives the investor has to pay premiums or margins, which are some percentage of total money.
4. Derivatives are mostly used for hedging purpose.
5. In derivatives segment the profit/loss of the option writer is purely depend on the fluctuations of the underlying asset.

Limitations of the Study

- The study has been conducted to understand only the price behaviour of selected banks (ICICI, HDFC, AXIS, CANARA and INDUSIND BANKS).
- Data collection was strictly confined to secondary data.
- Detailed study of the topic was not possible due to limited size of the project.



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