

Risk and Return Analysis of Index and Stock Options



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ABSTRACT

The emergence of the market for derivative 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. By their very nature, the financial markets are marked by a very high degree of volatility.

Through the use of derivative products, it is possible to partially or fully transfer price risks by locking-in asset Prices. As instruments of risk management, these generally do not influence the Fluctuations in the underlying asset prices. However, by locking-in asset prices, Derivative products minimize the impact of fluctuations in asset prices on the Profitability and cash flow situation of risk-averse investors.

Derivatives are risk management instruments, which derive their value from an underlying asset. The underlying asset can be bullion, index, share, bonds, Currency, interest, etc., Banks, Securities firms, companies and investors to hedge risks, to gain access to cheaper money and to make profit, use derivatives. Derivatives are likely to grow even at a faster rate in future.

DEFINITION OF DERIVATIVES

“Derivative is a product whose value is derived from the value of an underlying asset in a contractual

manner. The underlying asset can be equity, Forex, commodity or any other asset.”

- Securities Contract (Regulation) Act, 1956 (SC(R) A) defines “debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security”
- A contract, which derives its value from the prices, or index of prices, of underlying securities.

FACTORS DRIVING THE GROWTH OF DERIVATIVES

Over the last three decades, the derivatives markets have seen a phenomenal growth. A large variety of derivative contracts have been launched at exchanges across the world. Some of the factors driving the growth of financial derivatives are:

- Increased volatility in asset prices in financial markets,
- Increased integration of national financial markets with the international markets,
- Marked improvement in communication facilities and sharp decline in their costs,
- Development of more sophisticated risk management tools, providing economic agents a wider choice of risk management strategies, and
- Innovations in the derivatives markets, which optimally combine the risks and returns over a

large number of financial assets leading to higher returns, reduced risk as well as transactions costs as compared to individual financial assets.

NEED FOR THE STUDY

The present study on Derivative options is very much appreciable on the grounds that it gives deep insights about the stock options market. It would be essential for the perfect way of trading in stock options. The study elucidates the role of derivative options in Indian financial markets.

Studies of this type are more useful to academicians and scholars to make further insights into the various aspects of derivative options in similar organizations.

An investor can choose the right underlying for investment, which is risk free. The study included the changes in daily price movement and buying and selling signals to the selected stocks. These help the investor to take right decisions regarding trading in derivative stock options.

OBJECTIVES AND METHODOLOGY

- The following are the major objectives of the study.
- To observe the daily price movement of Nifty index options.
- To offer suggestions based on the findings to the study.
- To find out risk and return of index and stock options.
- To find out the relationship between the return of index options and stock options

METHODOLOGY:

The Methodology of the study consists of

- Source of data collection
- Statistical tool
- Data Analysis

Source of data collection:

The data had been collected through Primary and Secondary sources.

Primary sources:

The data had been collected the Company.

Secondary sources:

The data had been collected through Books, Journals and Websites.

Data Analysis:

The data had been analyzed using Tables and Charts.

LIMITATIONS OF THE STUDY\

The limitations of the study are,

- The study is confined to only for one year
- The study is limited by time and cost factors.
- The sample size chosen is limited to stock options.
- The limited period of study may not be detailed and full-fledged in all aspects.

SHAREKHAN LIMITED

Share khan Ltd. is one of the leading retail stock broking house of SSKI Group which is running successfully since 1922 in the country. It is the retail broking arm of the Mumbai-based SSKI Group, which has over eight decades of experience in the stock broking business. Share khan offers its customers a wide range of equity related services including trade execution on BSE, NSE, Derivatives, depository services, online trading, investment advice etc.

The firm's online trading and investment site - www.sharekhan.com - was launched on Feb 8, 2000. The site gives access to superior content and transaction facility to retail customers across the country. Known for its jargon-free, investor friendly language and high quality research, the site has a registered base of over one lakh customers. The content-rich and research oriented portal has stood out among its contemporaries because of its steadfast dedication to offering customers best-of-breed

technology and superior market information. The objective has been to let customers make informed decisions and to simplify the process of investing in stocks.

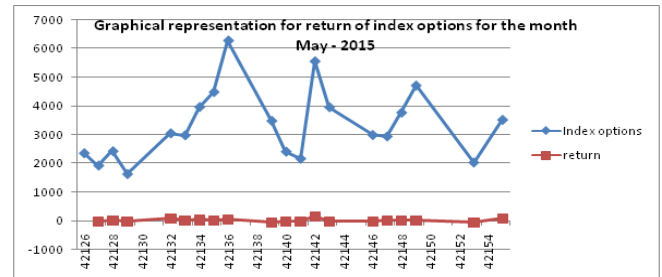
On April 17, 2002 Share khan launched Speed Trade, a net-based executable application that emulates the broker terminals along with host of other information relevant to the Day Traders. This was for the first time that a net-based trading station of this caliber was offered to the traders. In the last six months Speed Trade has become a *de facto* standard for the Day Trading community over the net.

Sharekhan's ground network includes over 1288 centers in 325 cities in India which provide a host of trading related services.

Sharekhan has always believed in investing in technology to build its business. The company has used some of the best-known names in the IT industry, like Sun Microsystems, Oracle, Microsoft, Cambridge Technologies, Nexgenix, Vignette, Verisign Financial Technologies India Ltd, Spider Software Pvt Ltd. to build its trading

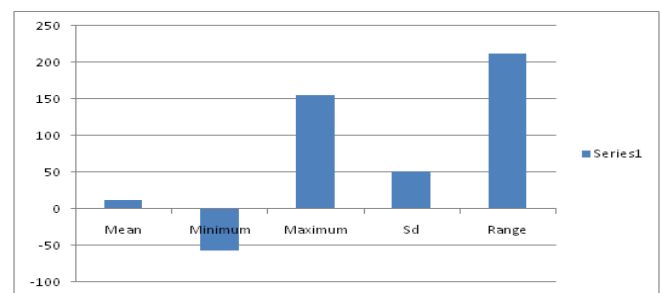
RETURN OF INDEX OPTIONS FOR THE MONTH OF MAY – 2015

DATE	Index options Turnover	return
2-MAY-15	2360.35	
3-MAY-15	1931.81	-18.16
4-MAY-15	2429.61	25.77
5-MAY-15	1634.42	-32.73
8-MAY-15	3049.56	86.58
9-MAY-15	2983.47	-2.17
10-MAY-15	3963.77	32.86
11-MAY-15	4482.91	13.10
12-MAY-15	6268.35	39.83
15-MAY-15	3483.2	-44.43
16-MAY-15	2415.06	-30.67
17-MAY-15	2171.08	-10.10
18-MAY-15	5549.68	155.62
19-MAY-15	3957.24	-28.69
22-MAY-15	2992.01	-24.39
23-MAY-15	2942.74	-1.65
24-MAY-15	3769.02	28.08
25-MAY-15	4708.64	24.90
29-MAY-15	2036.29	-56.74
31-MAY-15	3517.32	72.73



SUMMARY OF STATISTICS	
Mean	12.09
Minimum	-56.74
Maximum	155.62
Sd	51.74674
Range	212.36

GRAPHICAL REPRESENTATION

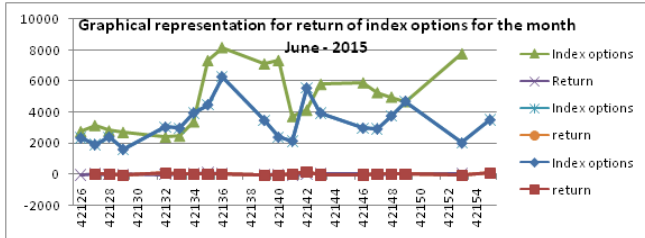


Interpretation:

The above graphical table represents the Mean, Standard deviation for the month of MAY-15. Here the risk is more and mean is 12.09. The returns can fluctuate in between -56.74 and 155.62.

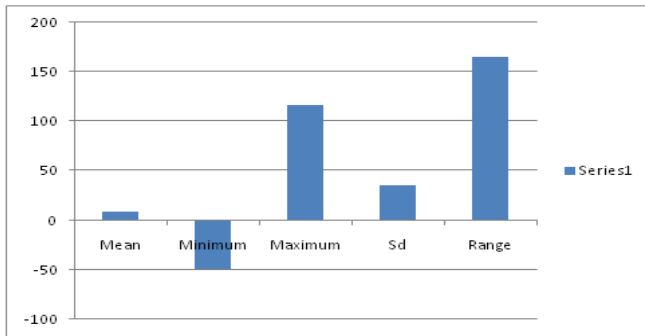
RETURN OF INDEX OPTIONS FOR THE MONTH OF JUNE – 2015

DATE	Index options Turnover	Return
1-JUNE-15	2749.12	-21.84
2-JUNE-15	3140.66	14.24
5-JUNE-15	2803.08	-10.75
6-JUNE-15	2704.01	-3.53
7-JUNE-15	2397.4	-11.34
8-JUNE-15	2462.23	2.70
9-JUNE-15	3382.79	37.39
12-JUNE-15	7327.23	116.60
13-JUNE-15	8166.93	11.46
14-JUNE-15	7108.98	-12.97
15-JUNE-15	7337.13	3.22
19-JUNE-15	3731.63	-49.14
20-JUNE-15	4127.87	10.62
21-JUNE-15	5800.23	40.51
22-JUNE-15	5893.35	1.61
23-JUNE-15	5265.08	-10.66
26-JUNE-15	4973.72	-5.53
27-JUNE-15	4679.95	-5.91
28-JUNE-15	7766.3	65.95



SUMMARY OF STATISTICS	
Mean	9.09
Minimum	-49.14
Maximum	116.60
Sd	36.03929
Range	165.74

GRAPHICAL REPRESENTATION

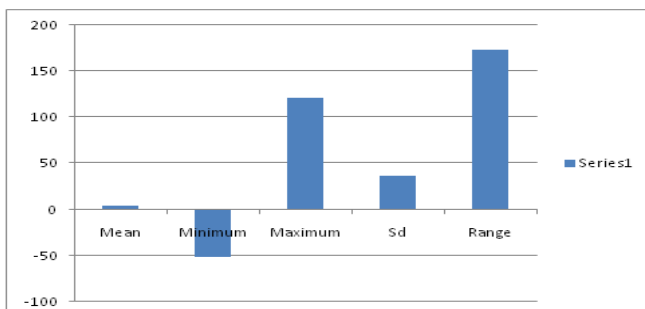


Interpretation:

The above graphical table represents the Mean, Standard deviation for the month of JUNE-15. Here the risk is less and mean is 9.09. The returns can fluctuate in between -49.14 and 116.60

SUMMARY OF STATISTICS	
Mean	4.78
Minimum	-51.93
Maximum	121.08
Sd	36.14536
Range	173.01

GRAPHICAL REPRESENTATION



Interpretation:

The above graphical table represents the Mean, Standard deviation for the month of JAN - 16. Here the risk is more and mean is 4.78. The returns can fluctuate in between -51.98 and 121.08.

FINDINGS

- In the period MAY-15 to MAR-16 of Index options there exists high return in the month of Nov (20), less return in the month of June (1.55) and negative returns in the month of Mar (-0.43).
- In the month of FEB-16 there exists very high risk i.e (97.42) when compared to other months.
- In the period MAY-15 to MAR-16 of Stock options there exists high return in the month of Nov (14.24), less return in the month of Dec (0.82) and negative returns in the month of February and March.
- In the month of Nov there exists high risk when compared to all other 11 months.
- In the period MAY-15 to MAR-16 there exists high positive Correlation i.e (0.96) between Index options and Stock option, So all data points tilt upward towards right direction. In the month of Feb there exists low correlation i.e (0.28)

SUGGESTIONS & CONCLUSIONS

- Correlation is defined as relationship between two or more variables. If the correlation is one then there exists perfect positive relation. If Correlation is (-1) then there exists perfect negative relation. If the correlation is "0" then there is no relationship between two variables.
- In the months of June, Aug, Sep and Nov there exists high positive relationship between Index and Stock options. So there exists high positive correlation
- In the months of Mar, Apr, May, Dec there exists strong positive relationship between

Index and Stock options. So there exists strong positive correlation.

- In the months of Jan, July, Oct there exists moderate positive relationship between Index and Stock options. So there exists moderate positive correlation.
- In the months of Feb there exists very low relationship between Index options and Stock options. So there exists very slight correlation.
- Among all these twelve months in, the month of Nov there exists high positive correlation ie 0.96
- Among all these twelve months, in the month of Feb there exists low positive correlation ie 0.28
- Overall study tells that, among twelve months there exists all the twelve months positive correlation. This shows that Index and Stock options moves in positive direction.

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