

## **Option Trading Strategies for Volatile Market Conditions: A Study of Select Steel Companies in India**

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**Abstract:** Financial derivatives are good instrument for reducing the risk. Forward, Future, Options and Swaps are the instruments of financial derivatives. It is an approach for calculating the value of a stock option and it give the traders an opportunity to make profit irrespective of the direction of the market. Options can be used for hedging and speculative purposes and most of the individual investors use options for speculation. It is available for bullish, bearish and volatile market conditions. In the present study options strategies is applied to forecast the volatility and return of select Indian steel company.

**Key words:** Options, Hedging, Speculative, Bearish and Bullish.

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### **INTRODUCTION**

One of the main attractions for trading in options is the leverage involved. One can think of big holdings with less amount of investment. Options give the traders an opportunity to make profit irrespective of the direction of the market. Options can be used for speculative and hedging purposes. Most of the individual investors use options for speculation. Usually Risk-seekers trade in the options market rather than average traders. But the fact is that derivatives are very good instruments in minimising the risk. Extensive range of option trading strategies enables the users to leverage the funds available for investment. Options trading strategies are available for bullish, bearish and volatile market situations. However, it is found that many investors do not trade in options market by using these option strategies. They trade based on trading calls received from the broking firms. If one can predict the direction of the market, it is very easy to book profit by using option trading strategies. Events in the recent past have highlighted that the volatility and uncertainty is an inherent feature of today's financial markets.

Many option trading strategies have been suggested and practiced. There are many option trading strategies. There strategies can be med to profit based on the investor's requirement and market conditions. One can choose the strategy based on this risk bearing capacity and prediction about the market. All the option trading strategies can be categories in three parts: Strategy for Bullish market, bearish market and volatile market.

#### **Profile of Indian Steel Industry and Select Stocks**

The Indian steel industry is one of the core industries and striving for continuous modernization, up gradation of older plants to newer plants and higher energy efficiency. It is more than a century old industry in India. The first integrated steel plant was established by Tata i.e., Tata Iron & Steel Company in 1907. The inherent strength of the Indian steel industry is availability of raw materials and skilled labour at

reasonable price. These factors are contributing to cost advantage of the domestic steel industry. The Steel industry has been getting demand from the sectors such as infrastructure, aviation, automobile, engineering, power generation, petrochemicals etc.

The Report of Working Group on Steel for the 12<sup>th</sup> Five Year Plan states that many factors having the potential of raising the per capita steel consumption in the country. An estimated infrastructure investment is about nearly a trillion dollars, a projected growth of manufacturing from current 8% to 11-12%, increase in urban population to 600 million by 2030 from the current level of 400 million, coming out of the rural market for steel currently consuming around 10 kg per annum buoyed by projects like Make in India, Bharat Nirman, Rajiv Gandhi Awaas Yojana, Pradhan Mantri Gram Sadak Yojana and others. The National Steel Policy (2005) by reviewing rapid developments in the domestic steel industry and the stable growth of the Indian economy predicted that the steel production to be reach 110 million tons by 2019-20. (Source: An Overview of the steel sector Ministry of Steel, Government of India)

The present study is confined to three steel companies namely; Tata steel and JSW Steel to representative the Indian steel industry Brief profile

Tata Steel is the part of eminent Tata group which is ranked among the most powerful corporate groups in India. It was started in 1907 in Jamshedpur and has been contributing to the country's growth from last 100 years. Company operates in more than 50 countries and has the capacity to produce 30 million tons of crude steel per year. Tata Steel is headquartered in Mumbai and more than 80,000 employees are associated with this company it is one of the fortune 500 company.

The JSW Steel was established in 1982 which has acquired 3<sup>rd</sup> place in Indian Steel sector and having more than 28 years of experience in steel industry. Company is the part of million dollars. The product portfolios of JSW include Hot and cold Rolled Product, Galvanised and Pre-painted Galvanized Product, TMT Bars, Wire Rods and Special Steel Products etc. JSW is headquartered in Mumbai and more than 90,000 employees are associated with this company.

### **Objectives of the study**

The specific objective of the study as are as under;

- To know the profitability of Indian steel companies for Volatile market option Strategies.
- To provide the suitable suggestions for findings.

### **Research Methodology**

A brief description the research design is as under:

- **Types of research:** Applied research was used to find the appropriate option trading strategies during volatile market conditions.
- **Sources of Data:** The data has been collected from the old website of National Stock Exchange and entire is secondary data.
- **Population:** All the stock options of NSE constitute as a study population.

- **Sampling Method:** The judgement sampling method has been applied for this paper.
- **Sample size:** Three month stocks of Tata steel and JSW steel companies are selected for the study.
- **Data taken:** 07/01/2022 to 27/01/2022.  
28/01/2022 to 24/02/2022  
25/02/2022 to 31/03/2022

### Data Analysis and Interpretation

The study is based on secondary data. An effort has been made in this paper to test the applicability of Option Trading Strategies meant for volatile market conditions with reference to selected Indian Steel Companies. The following strategies have been used, for the three months data. Long Straddle, Short Straddle, Long Strangle and Short Strangle

#### Long Straddle

A Straddle is a volatility strategy and is used when the stock price or index is expected to show large movements. Long straddle strategy involves buying a call as well as put on the same stock or index for the same maturity and strike price, to take advantage of a movement in either direction. If the price of the stock or index increases, the call is exercised while the put expires worthless and if the price of the stock or index decreases, the put is exercised, the call expires worthless. Either way if the stock or index shows volatility to cover the cost of the trade, profits are to be made.

**When to Use:** The investor thinks that the underlying stock or index will experience

#### Short Straddle

A Short Straddle is the opposite of Long Straddle. It is a strategy to be adopted when the investor feels the market will not show much movement. He sells a Call and a Put on the same stock or index for the same maturity and strike price. It creates a net income for the investor. If the stock or index does not move much in either direction, the investor retains the Premium as neither the Call nor the Put will be exercised. However, in case the stock /index moves in either direction, up or down significantly, the investor's losses can be significant. So this is a risky strategy and should be carefully adopted and only when the expected volatility in the market is limited.

**When to Use:** The investor thinks that the underlying stock or index will experience

**Table No.1**  
**Long Straddle for TATA STEEL**

**(In Rupees)**

Date of transaction (Spot price)	Date of expiration	Transaction	Strike price	Premium paid	Closing price of the stock on date of expiration	Pay off	Net Pay off
07-01-2022 (1160.35)	27-01-2022	Buy 1 CE	1240	116.58	1088.35	Nil	-
		Buy 1 PE	1240	5.90		151.65	145.75

		<b>Total</b>		<b>122.48</b>		<b>151.65</b>	<b>-29.17</b>
28-01-2022 (1167.50)	24-02-2022	Buy 1 CE	1300	226.03		1074.05	Nil
		Buy 1 PE	1300	34.27	225.95		191.68
		<b>Total</b>		<b>260.30</b>	<b>225.95</b>		<b>-34.35</b>
25-02-2022 (1289.35)	31-03-2022	Buy 1 CE	1440	247.86	1307.2	Nil	-
		Buy 1 PE	1440	0.83		132.8	131.97
		<b>Total</b>		<b>248.69</b>		<b>132.8</b>	<b>-115.89</b>

The total premium paid for transactions shown in the Table no.1 is Rs. **510.4** and the net payoff is Rs. **-179.41**

**Table No.2**  
**Long Straddle for JSW STEEL**

**(In Rupees)**

<b>Date of transaction (Spot price)</b>	<b>Date of expiration</b>	<b>Transaction</b>	<b>Strike price</b>	<b>Premium paid</b>	<b>Closing price of the stock on date of expiration</b>	<b>Pay off</b>	<b>Net Payoff</b>
07-01-2022 (672.85)	27-01-2022	Buy 1 CE	720	59.84	621.1	Nil	-59.84
		Buy 1 PE	720	1.37		98.9	97.53
		<b>Total</b>		<b>61.21</b>		<b>98.9</b>	<b>37.69</b>
28-01-2022 (659.95)	24-02-2022	Buy 1 CE	640	100.7	569.35	Nil	-100.7
		Buy 1 PE	640	2.8		70.65	67.85
		<b>Total</b>		<b>103.5</b>		<b>70.65</b>	<b>32.85</b>
25-02-2022 (646.6)	31-03-2022	Buy 1 CE	690	110.28	732.65	Nil	-
		Buy 1 PE	690	1.59		42.65	41.06
		<b>Total</b>		<b>111.87</b>		<b>42.65</b>	<b>-69.22</b>

The total premium paid for transactions shown in the Table no.1 is Rs. **212.2** and the net payoff is Rs. **1.32**

**Table No.3**  
**Short Straddle for TATA STEEL**

**(In Rupees)**

<b>Date of transaction (Spot price)</b>	<b>Date of expiration</b>	<b>Transaction</b>	<b>Strike price</b>	<b>Premium paid</b>	<b>Closing price of the stock on date of expiration</b>	<b>Pay off</b>	<b>Net Payoff</b>
07-01-2022	27-01-	Sell 1 CE	1240	116.58	1088.35	Nil	116.58

(1160.35)	2022	Sell 1 PE	1240	5.90		-	-
						151.65	145.75
		<b>Total</b>		<b>122.48</b>		<b>-</b>	<b>29.17</b>
28-01-2022 (1167.50)	24-02-2022	Sell 1 CE	1300	226.03	1074.05	Nil	226.03
		Sell 1 PE	1300	34.27		-	-
		<b>Total</b>		<b>260.30</b>		<b>-</b>	<b>34.35</b>
25-02-2022 (1289.35)	31-03-2022	Sell 1 CE	1440	247.86	1307.2	Nil	247.86
		Sell 1 PE	1440	0.83		-132.8	-
		<b>Total</b>		<b>248.69</b>		<b>-132.8</b>	<b>115.89</b>

The total premium paid for transactions shown in the Table no.1 is Rs. **-510.4** and the net payoff is Rs.**179.41**

**Table No.4**  
**Short Straddle for JSW STEEL**

(In Rupees)

Date of transaction (Spot price)	Date of expiration	Transaction	Strike price	Premium paid	Closing price of the stock on date of expiration	Pay off	Net Payoff
07-01-2022 (672.85)	27-01-2022	Sell 1 CE	720	59.84	621.1	Nil	59.84
		Sell 1 PE	720	1.37		-98.9	-97.53
		<b>Total</b>		<b>61.21</b>		<b>-98.9</b>	<b>-37.69</b>
28-01-2022 (659.95)	24-02-2022	Sell 1 CE	640	100.7	569.35	Nil	100.7
		Sell 1 PE	640	2.8		-	-67.85
		<b>Total</b>		<b>103.5</b>		<b>-</b>	<b>-32.85</b>
25-02-2022 (646.6)	31-03-2022	Sell 1 CE	690	110.28	732.65	Nil	110.28
		Sell 1 PE	690	1.59		-	-41.06
		<b>Total</b>		<b>111.87</b>		<b>-</b>	<b>69.22</b>

The total premium paid for transactions shown in the Table no.1 is Rs. **-212.2** and the net payoff is Rs.**-1.32**

**Table no.5**

**Glimpse of Profitability of Options Trading Strategies of TATA steel and JSW Steel**

Strategy	Payoff (In Rs.)		Net Payoff (In Rs.)	
	TATA steel	JSW Steel	TATA steel	JSW Steel
Long Straddle	510.4	212.2	-179.41	1.32
Short Straddle	-510.4	-212.2	179.41	-1.32

It can be inferred from the above table that Long Strangle is the better strategies than Short Strangle. Two stocks have yielded profit under Long Straddle Strategies.

**Findings**

- The study findings shows that one can profit by trading based on option trading strategies.
- Normally steel stocks are volatile, as they are exposed to exchange rate risk and other factors. Therefore, option strategies for volatile market can be applied.
- Long straddle and Long strangle strategies have yielded positive payoff in both the steel stocks.
- Short straddle and short strangle have shown losses in both the cases.
- The long straddle and long strangle, the payoff is higher for these companies for one company in case of long straddle.
- TATA steel has shown high profits in long strangle and loss in short strangle
- JSW Steel has shown high profits in short strangle and loss in long strangle.

**Suggestions**

- The study analysis indicates that options are not highly risky.
- It is advisable to trade based on option trading strategies to have decent return on investment.
- Based on the payoff of various strategies it can be said that one can make profit by using option trading strategies meant for volatile market condition.

**CONCLUSION**

Majority of the investors are familiar with the cash segment of stock market. But, the awareness about derivatives is relatively less. Investment in options is very options require lot of knowledge of the market and ability to predict the market movement. Good number of options trading strategies is available for bullish, bearish

and volatile market situations. Many investors do not trade in the options market by using the options trading strategies. They trade based on trading calls received from the broking firms. It is found that profit can be booked if the options trading strategies are followed. But it is very important to choose the appropriate strategy as lot of strategies is available. The study has proved that all strategies may not work all the times. Based on the analysis of the select strategies it is advised to use Long Straddle and Long Strangle strategies during volatile market conditions.

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