

# Impact of Derivatives Trading on Investors in Indian Capital Market

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## Abstract

The rise of a business opportunity for subordinates items, especially fates and choices, can be followed back to the danger antagonistic ability of monetary operators. To monitor them against vulnerability emerging out of variance in resource costs. Today since the risk and volatility of derivatives are also increasing, the protection against these has become an integral part of the market. In this context, the study of derivatives trading and its impact on investors is analyzed with the primary data using simple percentage analysis based on the perception of investors. Further, Johansen's cointegration test In request to examine the effect of subsidiaries exchanging on the Indian capital market, the Augmented Dickey-Fuller Unit Root Test was utilized. Consequences of

the co-combination test It shows that a single cointegration vector has a significance level of 5 per cent, indicating that spot and future costs are long haul co-coordinated, which is a marker of the general productivity of the fates market. It is presumed that the Indian fates market is a generally proficient value revelation vehicle and will push merchants to secure the most significant returns at least danger presentation by taking hedging and arbitration positions.

**Keywords:** *derivatives trading, investor perception, cointegration, efficiency, risk*

## Introduction

A subordinate is an item, the estimation of which is gotten legally from the analysis of at least one of the fundamental factors or resources. Equity, forex, commodities or any other asset may be the underlying asset.

1. Security got from an obligation instrument, from an offer, from an advance, regardless of whether make sure about, from a danger instrument, from a differential agreement or some other type of security.
2. An agreement which gets its incentive from the fundamental protections' costs or value file.

Components driving the improvement of subordinates:

The subsidiaries market has seen extraordinary development in the course of recent many years. In trades, the world over, an expansive assortment of subsidiary agreements have been dispatched. A portion of the factors that drive the development of money related subsidiaries

1. Expanded instability in resource costs in monetary business sectors
2. Expanded joining into the global business sectors of public economic business sectors.
3. A checked improvement and a sharp decrease in their expenses in correspondence offices.
4. Growing further developed danger the board instruments, offering a more extensive decision of risk the executives systems to monetary operators, and
5. Developments in subsidiaries advertises that consolidate danger and profit ideally for countless money related resources bring about better yields, lower risk and exchange costs contrasted with individual monetary resources.

## Need for the study:-

Budgetary subsidiaries are very new to the Indian money related market. Yet, the need for subordinates has demonstrated tremendous potential, as can be seen from ongoing development, the changing economic climate and expanded introduction to budgetary dangers. It is critical to have decent working information on subordinates. It is essential to consider subordinates and subsidiaries items and to comprehend the exchange subsidiaries in India and to attempt to gather data on subordinates items with a unique spotlight on prospects and choices. The subsidiaries market is still in the maturing stage.

## Review of literature

**Sumon Kumar Bhaumik(2009)** in his article Evidence from Indian economic studies on the effect of subordinates exchanging on developing securities exchanges: uncovered that market has become more volatile and it has become more efficient. **Julie R Agnew (2006)** The development of social fund, which sets out the apparent mindlessness of dynamic financial specialists, has been reviewed. He suggested that understanding of behavioural finance would make it possible for the investor to acquire a more rational investment decision-making capability. **Victor Ricciardi and Helen K**

**Simon (2000)** Discussed some of the trading approaches for stock and bond investors to help them manifest and control their psychological roadblocks. **Bandgar(1998)** reveals that investors are educated in investment decision making. **Lewellen (1977)** finds that age, sex, salary and training influences financial specialist inclinations and perspectives towards venture choices. **Milan Lovric et al. (2008)** He finds that speculators are not generally ready to evaluate the estimation of dynamic other options appropriately, can't gauge and refresh probabilities and occasions, and don't broaden appropriately in his article on a viable market theory for the social fund, on how speculator brain research is changing the viewpoint for money related business sectors.

### **Research Methodology**

The plan for the proposed investigation would target investigating the specialist financial conduct regarding Bangalore city. The examination intends to discover how financial specialists would approach different investment options, which ones they invest in, factors considered, etc. The experimental design of the research would, therefore, be received for the current examination. The way to deal with the poll was utilized for information assortment. Essential information was gathered from 100 speculators in Bangalore City in this examination. An aggregate of around 125 votes was sent by different intends to financial specialists situated in Bangalore. A reaction of 100 legitimate finished polls has been gotten. Analytical tests such as a single percentage analysis used to present the data collected and Johansen's cointegration test and Expanded Dickey-Fuller Root Test Unit has been utilized to break down the effect of derivatives trading in Indian capital market.

### **Statement of the problem:-**

Money related subsidiaries are very new to the Indian monetary market. Yet, the subordinates market has demonstrated a gigantic expected obvious because of ongoing development, a changing budgetary climate and expanded presentation to fiscal dangers. Good working knowledge of derivatives is critical to have. To demonstrate that derivatives trading is an investment concept and can be used as a hedging tool which acts as the other side of derivatives of the Indian market.

### **Objectives of the Study:-**

- To examine how the subsidiaries can be utilized as supporting, theory and arbitrage tool in the financial market.
- To identify the awareness of derivatives among the investors.
- To understand the trading mechanism of derivatives.
- To analyze the influence of derivatives trading in the Indian Capital Market.

### **Sampling Method:-**

The type of research method used is Non-probability and Convenient sampling method.

### **Data Collection Method**

Essential just as optional information is gathered for the examination.

### **A. Primary data**

The essential information from the poll regulated to the respondents is gathered.

**B. Secondary data:**

Auxiliary data is gathered through papers, magazines, sites, for example, nseindia.com, bseindia.com, myiris.com, derivatives.com, moneycontrol.com, etc..

**Sample size:-**

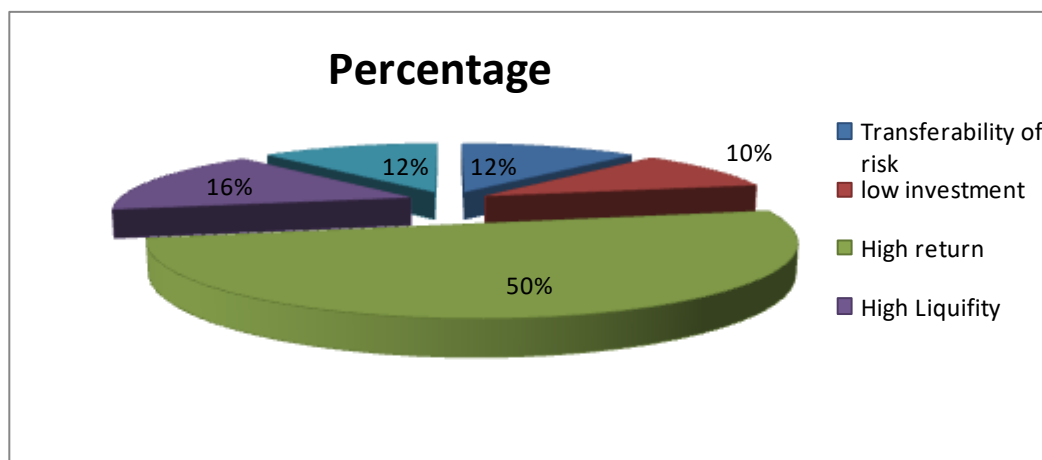
The number of people in the sample is limited to 100 (i.e.  $n \leq 100$ ).

**Analysis and Interpretation**

Advantages	Frequency	Percentage
Transferability	6	12
Low Investment	5	10
High Return	25	50
High Liquidity	8	16
Price Discovery	6	12

**Table 1 Showing Advantages of Derivatives Market according to the respondents**

From the above Table, it is clear that 12% of Investors opinion about the derivatives Market is Transferability of risk, 10% is low Investment, 50% is High Return, 16% is high liquidity, 12% is Price Discover.



**Figure 1: Advantages of Derivatives Market according to the respondents**

- From the above analysis, it is clear that 12% of Investors opinion about the Derivatives Market is Transferability of Risk, 50% is a high return. So to overcome the risk Investors invest in Derivatives Market.
- 15% is the high liquidity that attracts investors, which is one of the advantages of derivatives trading.
- Others are low Investment, i.e. 10% and price discovery, i.e. 12%.
- In total from the above chart, we can say that high return is the primary reason to invest in derivative trading, which is 50% and all other forms the remaining 50%.

Choices	Frequency	Per cent	Cumulative Percent
Less brokerage	8	8.0	8.0
Less investment (only margin)	24	24.0	32.0
Sufficient time to square off	28	28.0	60.0
Good hedging tool	20	20.0	80.0
High returns	20	20.0	100.0
<b>Total</b>	<b>100</b>	<b>100.0</b>	

Table 2 showing the factors responsible to invest in derivatives

**Factors influencing in investments in derivatives**

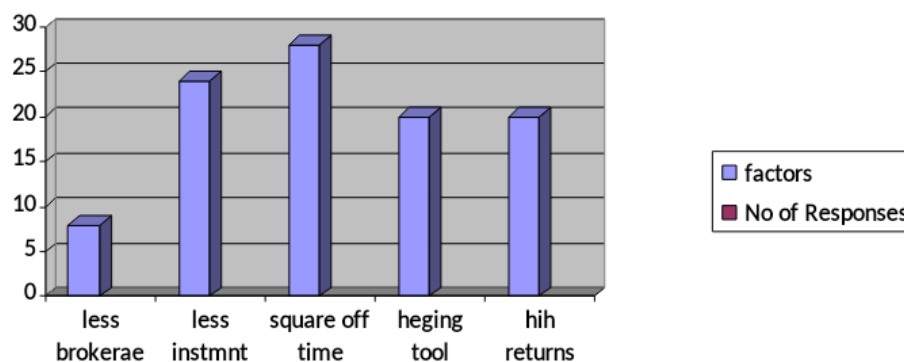


Figure 2. Factors influencing in investments in derivatives

**Factors influencing Investment in derivatives**

- Investing in F&Os because of sufficient time to square off their position, which amounts to 28% as a whole and also enjoys topmost priority by the investors.
- 24 respondents are in the opinion that investing in F &O is preferable because of less Investment (only margin) reason, which amounts to 24% as a whole.
- 8 respondents are investing in the F&Os because of low brokerage charges, which amount to 8% as a whole and which is lowest preferred

The majority feels that sufficient time to square off factor is to be given much prime importance followed by the less Investment, hedging tool, and returns option by the investors.

The point of this examination is to analyze the adequacy of the Indian prospects market in the period between April 2000 and October 2011. The time arrangement of future spot costs 'St' and fates costs'

Ft-1 'relating to those spot costs are needed to investigate the proficiency of prospects markets. Nonetheless, it is essential to decide the request for joining for every one of the two factors utilized in the investigation before continuing to the Co-coordination test. For this reason, the root trial of the Augmented Dickey-Fuller unit was used, and the consequences of this test are accounted for in

<b>Variables in their First Differences trend and Intercept</b>	<b>ADF Statistic</b>	<b>Critical Values</b>	<b>Decision</b>
<b>NIFTY</b>	<b>-49.33</b>	<b>At 1%-3.96 At 5%-3.41 At 10%-3.12</b>	<b>Reject Null Hypothesis of no unit root</b>
<b>FUTIDX</b>	<b>-51.12</b>	<b>At 1%-3.96 At 5%-3.41 At 10%-3.12</b>	<b>Reject Null Hypothesis of no unit root</b>

**TABLE -3.RESULT OF ADF UNIT ROOT TEST**

It is evident from Table-3 that in their first contrasts, the invalid speculation of no unit pulls for both time arrangement is dismissed because the measurable estimations of the ADF test are lower than the essential qualities at 10%, 5 per cent and 1 per cent essentialness levels. In a similar request, the factors are in this manner fixed and incorporated, for example, In I(1). The Johansen Co incorporation test is utilized to test long haul market effectiveness because the two arrangement are I(1), and the consequences of the Johansen Co mix test are summed up in the accompanying table.

<b>Hypothesized Number of Cointegrating Equations</b>	<b>Eigen Value</b>	<b>Trace Statistics</b>	<b>Critical Value at 5%(p-value)</b>	<b>Maximum Eigen statistics</b>	<b>Critical Value at 5%(p-value)</b>
<b>None At Most 1</b>	<b>0.038091 0.000081</b>	<b>106.39860.222223</b>	<b>15.494719(0.0001) 3.841466(0.6373)</b>	<b>106.17640.222223</b>	<b>14.26460(0.0001) 3.841466(0.6373)</b>

\*Denotes rejection of the hypothesis at the .05 level

**TABLE 4: RESULT OF JOHANSEN'S COINTEGRATION TEST**

The cointegration test in the above table 4 indicates that at a 5 per cent significance level, there is one cointegrating vector. This shows that, in the long term, spot and futures prices are cointegrated, which is an indicator of the relative effectiveness of the futures market. It can therefore be concluded, based on the above observations, that the Indian fates market is a moderately productive vehicle for value disclosure and will unquestionably help merchants to take supporting and assertion positions to make sure about most extreme returns at least danger presentation. Besides, the

commitment of the futures market to limiting the instability of the money market is a significant part of the compelling revelation of costs. Albeit a moderately proficient value disclosure vehicle has been identified for the futures market, meaningful information on the specific degree of the value disclosure of the Indian futures market will be given by the examination of the spread conduct between the prospects and the spot market.

### **Findings of the study**

- It is observed that 12% of Investors opinion about the Derivatives Market is Transferability of Risk, 50% is a high return. So to overcome the risk Investors invest in Derivatives Market.
- 15% is the high liquidity that attracts investors, which is one of the advantages of derivatives trading.
- Others are low Investment, i.e. 10% and price discovery, i.e. 12%.
- In total from the above chart, we can say that high return is the primary reason to invest in derivatives trading, which is 50% and all other forms the remaining 50%.
- They are investing in F&Os because of sufficient time to square off their position, which amounts to 28% as a whole and also enjoys topmost priority by the investors.
- Twenty-four respondents are in the opinion that investing in F &O is preferable because of less Investment (only margin) reason, which amounts to 24% as a whole.
- Eight respondents are investing in the F&Os because of low brokerage charges, which amount to 8% as a whole and which is the lowest preferred
- The majority feels that sufficient time to square off factor is to be given much prime importance followed by the less Investment, hedging tool, and returns option by the investors.
- The cointegration test indicates that at a 5 per cent significance level, there is a single cointegrating vector. This suggests that the long-term cointegration of spot and futures prices is an indicator of the relative efficiency of the futures market.
- The fact that the Indian prospects market is a moderately proficient value revelation vehicle will positively help brokers to take supporting and mediation positions to make sure about most extreme returns at least danger introduction.

### **Conclusion**

Investors are using derivatives for hedging their cash market segment. A lot of awareness is needed to make them involve in derivative instruments. Investors are more inclined to index futures than the options. Role of print media and electronic media can have a significant impact influencing investors into the derivative markets and information about commodity market is very low. Financial derivatives are chosen over commodity markets even though it is riskier than the latter. Impact of derivatives and capital market is very much there, and price discovery is made possible in a logical way rather than just mere speculation. Level of thinking of investor has to be redefined and reoriented towards knowledge-based trading rather than mere blind walk into these highly correlated markets.

### **References**

1. Bandgar P.K. (1998), "A study of Middle-Class Investor's Preferences for Financial Instruments in Greater Bombay", Doctoral Thesis Submitted to Saurashtra University, Rajkot.
2. Sumon Kumar Bhaumik(2009) Impact of Derivatives Trading on Emerging Stock Markets: Some Evidence from India', in *Comparative Economic Studies* (2009) 51, 118–137.

3. Cohn.R.A, W.G.Lewellen, R.C.Lease, and G.G.Schlarbaum(1975), "Individual Investors Risk Aversion and Investments Portfolio Composition", *Journal of finance*, XXX(2), pp;605-620.
4. Julie R Agnew (2006), "Do Behavioural Biases vary across Individuals? Evidence from Individual level 410(k)data", *Journal of financial and Quantitative Analysis*, Vol 41 No.4 Dec 2006,pp.939-961.
5. Milan Lovric, Uzay Kaymak and Jaap Spronk(2008), "A Conceptual Model of Investor Behavior" ERIM Report Series Research in Management, [www.erin.nl](http://www.erin.nl).
6. Olsen R (1998), "Behavioural Finance and its Implication for Stock Price Volatility" *Financial Analysts Journal*, Vol.54, No.2, pp.10-18.
7. Ruchika GAHLOT, Saroj K. DATTA and Sheeba KAPIL(2010), 'Impact of derivative Trading On Stock Market Volatility in India: A Study of S&P CNX Nifty'-, *Eurasian Journal of Business and Economics*, 3 (6), 139-149
8. Koustubh Kanti Ray(2011) 'The Impact of Derivative Trading on Spot Market Volatility: Evidence for Indian Derivative Market' published in *Interdisciplinary Journal of Research in Business*, Vol. 1, Issue. 7, (pp.117-131)-.
9. 'Srinivasan.P (2008) "The Impact of Futures Trading on the Spot Market Volatility of Selected Commercial Banks in India' published in *European Journal of Economics, Finance and Administrative Sciences*, ISSN 1450-2275 Issue 14