



## Derivatives: An instrument of financial market

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### Abstract

You may have heard the word in your high school mathematics class, someone may have suggested you use derivatives as part of your investment strategy, or you may already work with derivatives already. 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.

**Keywords:** derivative, fluctuations, strategy, uncertainty

### Introduction

A derivative is a contract between two parties which derives its value/price from an underlying asset. The most common types of derivatives are futures, options, forwards and swaps.

It is a financial instrument which derives its value/price from the underlying assets. Originally, underlying corpus is first created which can consist of one security or a combination of different securities. The value of the underlying asset is bound to change as the value of the underlying assets keep changing continuously.

Generally stocks, bonds, currency, commodities and interest rates form the underlying asset. We live in a world where commodity prices can increase dramatically and then collapse, property prices can reach vertiginous levels and uncertainty is prevalent in all facets of economic life. But if we look more closely at this dynamic economic picture "risks" are not equally shared or perceived: for an airline company rising oil prices mean increased costs and the risk of reduced profits; for an investor looking for higher returns than a treasury bond, investment in oil is rewarded with high returns. Although for both parties the future is equally uncertain, each party has different exposure to the same set of future scenarios.

One can therefore see a role for a financial institution that offers to protect a party against a set of future scenarios—for a price of course. For the airline company, the financial institution can offer to sell jet fuel at a fixed price if the price of jet fuel at some future date is above this fixed price. In a way, the financial institution has created a derivative world for the airline company in which the price of jet fuel cannot go above the fixed price specified in the contract.

### Three key uses of derivatives

#### 1 Hedging

Hedging using derivatives is commonly used by parties who seek to offset their existing risks by entering into a derivatives transaction. The existing risks could be an investment portfolio, price changes in oil for a petroleum mining

company or perhaps investments in a foreign country.

#### 2. Speculating

Speculation is more commonly used by hedge funds or traders who aim to generate profits with only a marginal investment, essentially placing a bet on the movement of an asset. Although speculation can produce a high return on investment, the downside risks are equally as prominent as demonstrated by the collapse of Long Term Capital Management in September of 1998. Because of the high degree of leverage one can take in speculative contracts, an adverse change in prices could result in rapidly increasing debt and a portfolio worth millions could fall to almost zero with the space of a few hours.

#### 3. Arbitrage

Opportunities to arbitrage take place throughout the world markets, and derivatives are sometimes used to exploit these. Practitioners working within risk finance or quantitative finance often develop models to price various assets being traded across the markets, and upon finding price discrepancies, one can make use of a specific combination of derivatives in order make a riskless profit.

### Types of derivatives

**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.

**Futures:** 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

**Options:** 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.

**Warrants:** Options generally have lives of up to one year, the majority of options traded on options exchanges having a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.

**Leaps:** The acronym LEAPS means Long-Term Equity Anticipation Securities. These are options having a maturity of up to three years.

**Baskets:** Basket options are options on portfolios of underlying assets. The underlying asset is usually a moving average or a basket of assets. Equity index options are a form of basket options.

**Swaps:** 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. There are two commonly swaps.

1. Interest rate
2. Currency

- **Interest rate swaps:** These entail swapping only the interest related cash flows between the parties in the same currency.
- **Currency swaps:** These entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.

**Swaptions:** Swaptions are options to buy or sell a swap that will become operative at the Expiry of the options. Thus a swaption is an option on a forward swap. Rather than have calls and puts, the stations market has receiver swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and receive floating.

**Significance of study**

- Financial derivatives are a new concept in Indian stock market. However, commodity derivatives in small numbers have come up. Our focus in this study is to examine, how investors use derivatives as a tool of hedging and investment.
- To know how many types of derivatives available in

Indian financial market.

- To know how derivatives, cover risk.

**Review of existing literature**

From Indian point of view very less literature is available on derivatives however L.C Gupta committee report on derivatives will be used extensively.

The results on the introduction of stock index futures are somewhat ambiguous. Many authors find no significant volatility effect associated with stock index listing. Earlier derivatives markets are existent in Indian financial market. But now a improvement has been taken place. Various SEBI guidelines has been issued in regard of contracts of derivatives.

The SEBI has appointed the following three committees in the recent past to study the question of developing a hedging mechanism, In India. The patel committee on forward trading, The Verma panel committee and The Gupta committee on derivatives.

**Objectives**

- To examine availability of various types of derivatives in Indian stock market.
- To know the development of financial derivatives in Indian stock market.
- How derivatives can be used as a tool of hedging?

**Research Methodology**

Research Problem Financial derivatives- an instrument of Hedging

Research Design Descriptive and Exploratory

Data collection  
 Sample Size 70 Persons  
 Sample Design Self employed  
 Professional  
 House wife’s  
 Service men  
 Retired

**1. Where do you invest your money?**

**Table 1**

Securities	No. of respondent
Banks	20
Mutual funds	15
Insurance	5
Share market	13
Real estate	17

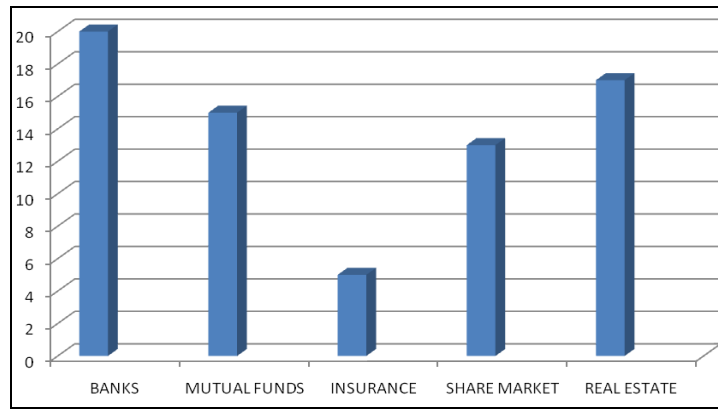


Fig 1

**Interpretation**

20 respondent invest their money in Banking Sector, 15 in Mutual fund, 5 in Insurance sector, 13 Share Market and 17 in Real Estate.

**2. Which type of investor you are?**

Table 2

Type of investor	No. of respondent
Hedger	25
Speculator	15
Arbitrager	13
None of these	7
Total	70

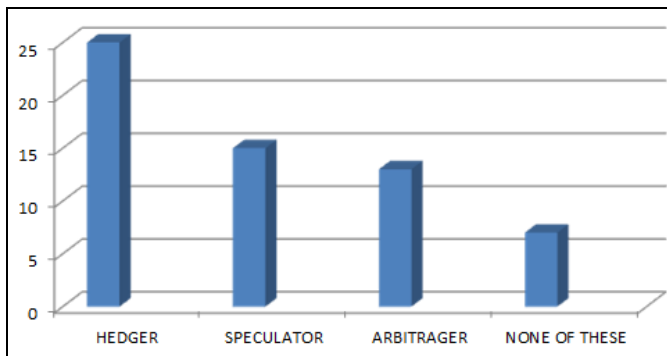


Fig 2

**Interpretation**

In market no. of participants 25 in HEDGING, 15 Speculator, 13 Arbitrager and 7 None of these.

**3. What factors do you consider most during the investment?**

Table 3

Factors	No. of respondent
Safety	17
Risk	13
Return	22
Liquidity	18
Total	70

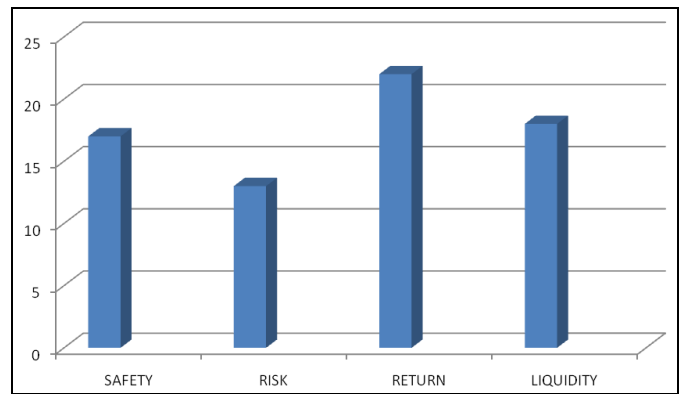


Fig 3

**Interpretation**

Investor consist these factor which is 17 respondent in Safety, 13 in Risk, 22 in Return and 8 in Liquidity.

**4. What level of liquidity you prefer to invest in derivatives?**

Table 4

1 Yrs	22
1 To 2 Yrs	19
2 To 5 Yrs	21
More than 5 YRS	8
Total	70

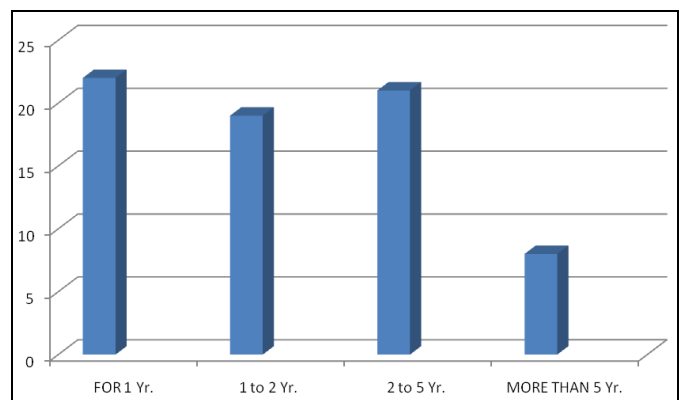


Fig 4

### **Interpretation**

Investors prefer to invest their money for 1 year for gaining short term benefit.

### **Finding and conclusion**

- Now day's financial derivatives in Indian stock market are playing very important role in the risk management.
- Most of the investors prefer to invest in options rather than future contracts because they think options as a better tool of hedging.
- Trading in derivatives in recognized stock exchange is not treated as "speculative transaction" for the purposes of the income tax act. Hence future and options have been kept outside the purview of taxes on speculative transactions.
- An investor can trade in options and futures contracts on two stock exchanges-NSE and BSE.

### **Limitation**

World have so many things, all things have two aspects one is advantages

And another is disadvantages, according to this, my project also has some

### **Limitations that are given below**

Although maximum efforts have been put to make the research project comprehensive and free from any biases, still the scope of project is limited due to some unavoidable reasons. Some of the reasons are given below.

- Limited time: There was limited time in which this project has to be completed. Therefore, it was a major limitation.
- Respondents: Response from the respondents was not satisfactory.
- The financial derivatives in Indian stock market are a new concept and very little empirical evidence is available.

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