



# STOCK INDEX FUTURE

G.REVATHI

# INTRODUCTION

Stock index future came to introduced with there commendation of the L.C Gupta committee report On Financial derivation. The report was instrumental For the launching of many of the derivative Products In the India capital market way back in May 1998.‘Stock Index Future’ was one of the important products of derivatives introduced by the two pioneering stock exchanges in India the Bombay stock Exchange and the National Stock Exchange on 9<sup>th</sup> June and 12<sup>th</sup> June 2000 respectively.

# DEFINITION

- A type of a futures contract that is based on an value line index is called “Stock Index Futures”. The first Stock Index Future contract based on a value line index was introduced by the KCBT(Kansas City Broad of Trade)on 24<sup>th</sup> febraury,1982.It was followed 2 months later by the S&D 500 index futures contract introduced by the Chicago Mercantile Exchange (CME).At present an S&P 500 index future is the most actively futures contract in the world.

# FEATURES

- Multiple or Market Lot Size
- Margin Requirement
- Settlement
- Specification
- Lifetime contract

# MULTIPLE OR MARKET LOT SIZE

- The Stock Index Futures can be bought or sold only in a specified lot size. For instance the market lot size for Nifty futures is 200. It means that if on a day where 'Nifty Future' is quoting at a price of Rs.1400 then the value of one Nifty contract shall be Rs 2,80,000 (200\*1400).

# MARGIN REQUIREMENT

- Like any other futures contract a Stock Index Futures contract is also characterized by margin requirement . The traders in a Stock Index Futures market are required to keep good faith deposits which are adjusted on a daily basis to account for the gains or losses . There are three types of margin in a futures market. ‘Initial margin’ is the margin amount initially required to open a margin account for trading.

# SETTLEMENT

- A Stock Index Futures contract does not entitle physical delivery of stocks and the contract is settled in cash on the settlement date. This is because it is virtually impossible to delivery all the stocks comprising the stock index and that too in the same proportion in which they appear in the index at the index at the time of settlement.

# SPECIFICATION

- A Stock Index Futures contract indicates the underlying index, contract size, price steps or tick size, price hands or price range, trading cycle, expiry day, settlement basis and settlement price,. These specification make a stock index a tradable security that can be bought or sold.



# LIFETIME CONTRACT

- The contract for each series of stock index futures spans a lifetime period. Although, the contract has a universal life span of three months, there is ensured a continuous activity as the stock index futures are issued in a series for the purpose of trading. At any point of time there are three series open for trading. On the expiry of the term of contract, a new series of future comes into existence.

# PRICING SIF

- The fair price of a Stock Index Futures contract is calculated with the help of the 'cost of carry model'. Accordingly, Stock Index Futures price depends up to Spot index value, cost of carry or interest rate and carry return i.e. dividends expected on securities comprising the index.

$$F = Se^{(r-y)t}$$

Where, F= Future price

e= Exponential constant with value 2.718

Y= Carry return e.g., dividend income

S= Spot value of index

r= Cost of carry or interest cost

t= Times to maturity in years

# BENEFITS OF SIF

- a) Difficulty of manipulation
- b) Less volatile
- c) Cash settlement
- d) Hedging
- e) Others

### **a)Difficulty of manipulation:**

Stock index is difficult to be manipulated as compared to individual stock price. Therefore, the possibility of cornering is reduced.

### **b)Less volatile:**

Stock index being an average is much less volatile than individual stock prices. The requires much lower capital adequacy and margin requirement than futures on individual stocks.

### c) Cash settlement:

Stock index futures are cash settled and hence, it avoids the problems associated with bad deliveries.

### **d) Hedging:**

Institutional investors, mutual funds and other large equity holders need portfolio-hedging facility. Stock Index Futures are an effective way of providing such a facility.

### **e) Others:**

Stock index futures involve much lesser regulatory complexities and have several advantages from the regulation standpoint.

# HEDGING USING SIF

- The process of reducing exposure to risk is known as 'Hedging'. A future contract acts as a hedge when a position is taken in it that is opposite to the existing cash position. Thus, hedgers short futures if they are long shares and long futures if they are short shares. The usefulness of stock index futures in portfolio management stems from the fact that they directly represent the market portfolio.

# SHORT HEDGE

- Short hedging implies that the speculator sells the shares and repurchases them later when they are cheaper. However, such an act would prove more costly as selling shares and repurchasing them later would require incurrence of transaction cost including brokerage charges, stamp duty and payment of service and other taxes. Moreover, some more amounts may be lost because of illiquidity in the market. While attempting to sell shares, a price might be quoted. This is termed as impact which exceeds the cost involved in the trading operation. However, if the price were to actually rise, there will be loss incurred .

# LONG HEDGE

- For a long hedger the risk faced is that the prices may rise. Accordingly, the index futures will be bought when faced with the situation of either currently short cash assets. Assume that a portfolio manager anticipates a bull market in near future in Indian equity market. He future anticipates that a certain amount will become available in new funds after a certain period for the funds to be invested in the stock market could mean that the bull market would be missed altogether.



# SPECULATION USING SIF

- Cash settlement and low transaction costs make the stock index futures contract ideal for speculation . Speculators anticipating a bullish trend simply buy stock index future and sell them when prices go up. A bear on the other hand simply sells futures and buys them when prices actually fall.