Hedging: An instrument to offset the risk

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Abstract

The changing business world creates the risk of foreign currency fluctuations among the investors. This causes the change in the prices of commodities & hence leads to either profits or losses. These types of risks can be manage and controlled by the 'Hedging' process. Hedging is a technique of transferring risks without buying insurance policies.

Introduction

After the implementation of LPG, the world has turned into a small village. So, the area of investment has become worldwide. Now we are not restricted to our own country to make investment. As we all know there are two sides of coin, there is no profit without risk. The risk is more important factor than profit. The investors must insure themselves against this negative factor (risk). For this purpose they indulge in the process of Hedging.

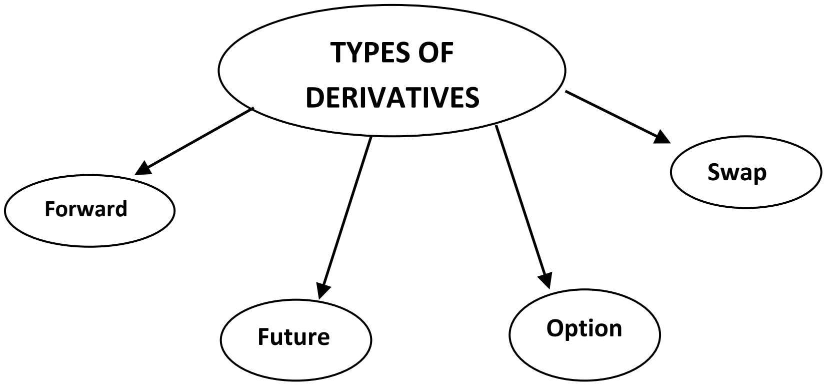
What is Hedging?

Hedging is a financial technique that reduces the impact of risk which occurs from the changing prices of commodities, currency & securities in future. In a layman language, hedging means to offset or secure the future risk by making transactions at present after considering present situation.

The investors participate in the process of hedging through derivative market by locking their prices to make the future transactions.

Derivatives Derivative is a financial instrument whose value has been derived by the performance of an 'underlying asset'. They can be traded over the counter where no stock exchange interferes. The main objective of the derivatives is to do hedging in mitigating or reducing the risk under the guidelines given by RBI. There are generally four users of derivatives:

- Market makers
- Speculators
- Hedgers
- Arbitrages



1. **Forward**: The market is uncertain. A forward contract occurs between two parties where by one party agrees to buy from or sell to the other an asset at a future date for an agreed price.

Characteristics of forward contract

- ❖ Counterparty default risks: That is the risk where the other party may not make the required delivery or payment.
- ❖ They are over the counter contract (OTC).
- ❖ Highly customized.
- ❖ Settlements made only at maturity.

How does it help in Hedging?

Generally, hedgers are not profit centered rather they are more keen to stabilize their revenue and reduces cost of their business operation. Their profit or losses are usually offset to some degree by a corresponding profit or losses the market for the underlying asset. Forward contracts are more beneficiary to hedgers than speculators.

There are two parties in forward contract:

(a) Buyer of the forward: Right to buy the currency at a specified rate at a specified date in future.
(b) Seller of the forward: Right to sell the currency at a specified rate at a specified date in future.

Forward contracts are mostly used by importers and exporters for hedging their future payables and receivables. Forward contracts are also known as zero sum game.

F = S x e^(r x t)

Where:

F = the forward price

S = the underlying asset's spot price

e = the mathematical irrational constant approximately 2.7183

r = the risk-free rate applicable to the life of the forward contract

t = time in years

2. **Future**: Future is a legal agreement between two parties to buy (holds long position) or sell (holds short position) a specific asset of standardized quality and quantity at a pre determined price at a specified time in future. This act makes it a derivative instrument.
   - These are derivative instruments.
   - Regulated by authority.
   - Standardized contract.
   - Two way trading: Long and Short.

The two parties are known as long and short. The long (buyer), who is under an obligation to buy the assets, whereas the short (seller) is obliged to sell the underlying assets.

For example:

Suppose Mr. X is a producer of a commodity, he is worried about falling in prices of commodity in near future. In order to hedge against the price volatility he could take the ‘short’ side of a future contract by fixing the selling price today.

3. **Option**: An option is a contract which gives the buyer (the holder of an option) the right, but not the obligation to buy or sell an underlying asset or instrument at a specified strike price on or before a specified date.

The buyer may or may not exercise the option but the seller is under an obligation to exercise the contract if buyer exercises the option.

Particulars	Right	Obligation
Buyer	○	X
Seller	X	○

Option Styles

There are many styles of framing option but the following three of them are familiar with the investors.

American Style: In this style of option the buyer has the right not an obligation to buy an underlying asset at a given price **by a** given date during the life of an option.

European Style: This style of option makes the buyer right but not again obliged to buy an underlying asset at a given price **at a** given date during the life of an asset.

Bermudian Style: Under this style, the buyer has the right but not an obligation to buy an underlying asset at a given price at some specific dates prior to the expiration of option.

In India, only two styles have been adopted i.e.

- Stock options are deal in American style
- Index options are deal in European style.

Call Option: The agreement which provides an option buyer the right, but not the obligation, to buy an underlying asset at a specified price within a specified time period.

Put Option: The agreement that gives the owner the right, but not the obligation to sell an underlying asset at a specified price within a specified time period.

Moneyness:

- In- the- money: Call option will be takes place when; the spot price is more than the strike price i.e. $S>X$. On the other hand, when the spot price is less than the strike price, then the put option will arise i.e. $S<X$.
- Out of the money: Call option arises when the Spot price is less than the strike price i.e. $S<X$ and vice a versa.

Black Scholes and stochastic volatility models are used to calculate the option pricing models.

4. **Swap**: Swap is an exchange of derivate/financial instrument for another between the parties concerned. It is an agreement between two parties to exchange a series of future cash flows. The swaps can be done on interest rates, stock indices, currency exchange rates and commodities prices.

There are two types of swaps:

- Interest rates swaps
- Currency swaps

Interest rates swaps: These are the exchange of cash flows between two counter parties at pre-determined conditions and specifications. It is an obligation between the parties for exchange of interest payments or receipts on investments over an agreed period of time. Interest rate swap is the exchange of fixed interest rates between two parties for a floating rare or vice versa to reduce the future risk or to take a shelter against the fluctuations in interest rates in near future.

- Fixed to floating
- Floating to Floating

Fixed to floating: This is a swap in which the customer receives cash flows at a fixed rate of interest and simultaneously pays cash flows at a floating rate which is determined by reference to a transparent Benchmark.

Floating to Floating: In this type of swap, both parties, swap the interest amounts which are based on two different floating reference rates.

Currency Swaps: It is a hedging instrument, which was initially marketed by banks and financial institutions in 1995-96 under the guidelines of RBI. These market makers hedge the currency in the spot market.

Conculsion

Every investor wants to play safe while investing his money. For the same they use hedging process by using various hedging techniques. They are able to analyze the risk at the portfolio level as well as at transaction arises from the exposure of hedging instruments and adopt appropriate policy as per the situation.

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