Derivatives: The Concept

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Definition of Derivatives

A derivative means an instrument whose value is derived from the underlying assets. A derivative is a contract between two or more persons for an underlying asset which is to be bought or sold at a certain future date for a certain future price.

Derivatives has been included in the definition of Securities through Securities Laws (Second Amendment) Act, 1999. The term Derivative has been defined in Securities Contracts (Regulations) Act, as:-

A Derivative includes: -

- a. a security derived from a debt instrument, share, loan, whether secured or unsecured, risk instrument or contract for differences or any other form of security;
- b. a contract which derives its value from the prices, or index of prices, of underlying securities;

Thus derivative can be for many type of assets including securities of different type and tenure like bonds, deposit certificates, debenture, equity commodities and even indexes of prices of different kind.

The term "Derivative" indicates that it has no independent value, i.e. Derivative does not have value of its own. Its value is entirely "derived" from the value of the underlying asset. Underlying asset include securities [shares, debentures, bonds etc.,], commodity, foreign currency, stock index, interest rates, commodities, bullion, etc.

In other words, Derivative means a forward, future, option or any other hybrid contract of pre-determined fixed duration, linked for the purpose of contract fulfilment to the value of a specified real or financial asset or to an index of securities. The most popular form of derivatives are futures & options (F&O). A futures contract means an agreement to buy or sell on a future date. This contract expires on a pre-set date. On expiry, futures are executed by delivery of the underlying asset or via payment. Options and futures are alike but when one does an options contract, he/she can choose to not make the transaction.

Type of Derivatives

There are various types of derivative contracts available in the market like:

1. Futures: Futures are a derivative contract where two parties are involved to buy or sell an underlying asset at a fixed predetermined price on a fixed pre-determined date. However, unlike forwards they are traded on exchanges and are regulated and because they trade on exchanges, they are more transparent and liquid in nature. Future contracts have a fixed contract size and a fixed expiry or settlement date. They can be settled by way of cash or physical delivery. Future contracts involve margin-based trading,

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it requires a trader to deposit an initial margin to become eligible to trade. Further, due to mark to market adjustments a trader may need to deposit additional funds to cover the potential losses that are a result of the daily fluctuations that takes place in the market

- 2. Options: Options are a type of financial derivative contract which gives the buyer the right to buy or to sell an underlying asset at a predetermined price on or before the determined expiration date. The buyer has no obligation to buy the options, however, if he decides to exercise his right to buy then the seller will be under an obligation to sell it to him. The agreed price at which the options are bought or sold is called the strike price. To enter into an option, contract a premium need to be paid which is also referred as option premium. There are 2 types of options:
 - a. Call option: The call option gives the holder the right to buy the underlying asset. Suppose a person is of the opinion that the price of an underlying asset will increase in the future so he will enter into a call option which will give him a right to buy it in the future at a price which will be less then the price prevailing in the market at that time and to enter into the call option by paying an option premium. The holder of the option will exercise the call option only when the strike price will be less than the prevailing market price on that day. The holder will buy at the strike price and will sell at the market price prevailing on that day.
 - b. Put option: The put option gives the holder the right to sell the underlying asset. Suppose a person is of the opinion that the price of an underlying asset will be going to decrease in the future so he will enter into a put option which will give him a right to sell it in the future at a pre-determined fixed price called the strike price and to enter in the put option by paying an option premium. The holder of the option will exercise the put option only when the strike price is higher than prevailing market price on that day. The holder will buy from the market at the prevailing rate and will sell at the strike price.

A person may be unsure about the price movements and directions so to take a safer approach he/she may buy both the call and put option for the same underlying asset at the same time.

- 3. Forwards: Forward contracts are private and customized contracts that takes place between two parties to buy or sell at a pre-determined price at a pre-determined date. Unlike future contract, forward contracts don't trade at exchanges rather they are executed over the counter. Unlike futures they are not traded in a fixed contract size however the quantity is determined as per the needs of the buyer or the seller. Forward contracts can be settled by way of cash or physical delivery.
- 4. Swaps: Swaps are privately negotiated derivative contracts that are traded over the counter. Under a swap contract two parties agree to exchange cash flows or liabilities/obligations over a specific period. Generally, to enter into a swap contract no initial payment is required however in some cases margin may be required. Businesses generally enter into swap contracts to hedge risks and assist in speculation. Swaps are of various types:
 - a. Equity swap: Returns from equity/ stocks are exchanged with a fixed or floating rate.
 - b. Commodity swap: under a commodity swap, two parties agree to exchange cash flows based on the price of a commodity. For example, a company that extensively relies on crude oil will enter into a

commodity swap to receive crude oil for a period of four years for fixed payments to protect itself from risk of increase in crude oil's price.

- c. Interest rate swap: under an interest rate swap two parties agree to exchange fixed and floating rates interest payments. The parties enter into these types of contracts when they do not get the option they want, i.e., it may happen that a party who wants fixed rate gets a floating rate and the other party that needs a floating rate gets a fixed rate, so in these circumstances they will come into an arrangement under which one will pay the interest obligation of each other. It is most common type of swap. For example, Mr. A wants a fixed rate of 10% but gets a floating rate of LIBOR + 1%, on the other hand Mr. B wants a floating rate of LIBOR + 1% but gets a fixed rate of 10%, so they both will get into a swap contract where Mr. A will pay LIBOR + 1% to the lender and 10% to Mr. B and will receive LIBOR + 1% from Mr. B and on the other hand Mr. B will pay 10% to his lender and LIBOR + 1% to Mr. A and will receive 10% from MR. A.
- d. Credit default swap: Under a credit default swap one party transfers its risk of default on debt or credit to another party, the party to whom the risk is transferred agrees to compensate the transferer in case of default in lieu of some premium payments. For example, XYZ ltd. buys bonds issued by ABC ltd., now XYZ ltd will enter into a credit default swap with a bank as per the terms of which if ABC ltd defaults in payments, then the bank will compensate XYZ ltd for the interest payments and the principal amount which ABC ltd defaults to pay, in exchange XYZ ltd will pay premium to the bank.
- e. Currency swap: a currency swap is a financial contract under which the parties in consideration agrees to exchange the principal amount and interest payments in different currencies.

Uses of Derivatives

Generally, investors use derivatives to achieve their investment goals and large business and financial institutions use them for managing various risks and opportunities, however they can be used by them for other purposes also.

India has also witnessed an increase in the awareness and use of derivates during the recent times, people use derivatives for hedging purposes or to speculate about future valuations or to boost their returns through leverage or for arbitraging. Usage of derivatives is not just confined to large financial institutions and government, there has been a significant increase in the usage of derivatives by the retailers. The participation of retailers in derivatives has increased as compared to past and what it seems at present that it will increase more in the future.

Derivatives are used for different-different purposes as under :

- 1. Hedging: People suffer heavy losses due to market fluctuations, with usage of derivatives like options and futures these losses can be covered to a good extent.
- 2. Arbitrage: The price of the same asset can be different in different markets; derivatives are used by the investors to exploit price discrepancy by simultaneously buying and selling the same asset in those markets.

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- 3. Speculation: Derivatives are used to speculate future prices so that profit can be made due to the price movements of the underlying assets, however it involves risk and can also lead to loss. Further, some financial institutions use derivatives to make a speculation about interest rates and currency exchange rates.
- 4. Risk Management: Business faces a risk of changes and fluctuations in commodity prices and currency exchange rates. Derivatives like hedging are used by these businesses to manage and mitigate these risks related to their operations.
- 5. Leverage:Derivatives is used to boost potential gains from an investment by using leverage, however it can backfire and instead of boosting profits it can lead to loss or amplify loss.
- 6. Funding and Capital Structuring:Derivatives can act as a cheaper source of funding for businesses. It canhelp firms to manage their funding and capital structure and make the capital structure more efficient.
- 7. Managing Foreign Exchange Reserves: Derivatives are used by the government to manage their foreign exchange reserves; with the usage of derivatives, they try to manage and mitigate the risks that arise due to currency fluctuations.
- 8. Managing Interest Rate Risk: The governments have huge debts in the form of government bonds, so it becomes necessary for them to tackle with the risk of changes in interest rate on these government bonds, so to tackle and manage these risks they may use derivatives.

Risk in Derivatives

Though, the derivatives are used to make profits or cover potential losses; they do carry some risks. Some of the risks of entering into derivative contract are:

1. A derivative is a contract between two or more persons so there is a risk that the other party may default in fulfilment of his/her part or duty of the contract. Majority of the derivative contract are traded over the counter instead of exchanges and for the reason, there is always a fear of default by the other party.

- 2. Derivatives are complex and their misuse or overuse can lead to big disasters.
- 3. Derivatives are used with an intent to boost potential gains and amplify returns through leverage; however, it can backfire and amplify losses Leverage risk. It involves leverage and as a result of which little fluctuations in price can lead to huge losses.

Disadvantages of Derivatives

Some of the disadvantages of Derivatives are as under :

- 1. Derivative held does not confer any voting rights in any company.
- 2. Derivative does not carry any benefit in corporate benefits and privileges announced by any of company represented by the particular derivative.

- 3. Holding of derivatives does not provide any control over any of company.
- 4. Derivatives have limited life and expiry on the predetermined expiry date.
- 5. The life of derivative is of fixed duration and has nothing to do with life of any company.

Calculation of Turnover of Derivatives

The meaning of turnover in case of transactions in Futures and Options of shares is not defined under the Income Tax Act. Though, for every trade, contract notes are issued which show the value of derivatives bought or sold, the difference on which the contract is purchased or sold is important. Although the value of contract is number of contracts multiplied with the shares price, yet what is actually given or taken is differential amount in contract. For an example:

- 1. X bought one lot of ABC Foundation at 3.0 lakhs Rs. and sold it for Rs. 4 lakhs (Profit = Rs. 1,00,000)
- 2. X bought another one lot of ABC Inc. at 4 lakhs Rs. and sold it for Rs. 3.50 lakhs (Loss= Rs. 50,000)

The turnover shall be calculated as Rs.1,00,000 + Rs.50,000 = Rs.1.50 lakhs.

For the purpose of determining the turnover in case of future and options, for the purpose of Sec. 44AB of Income Tax Act, 1961, based on the guidance note of ICAI, following items should be considered to constitute turnover:-

- The total of positive and negative differences, plus
- Premium received on sale of options is also to be included in turnover, plus
- In respect of any reverse trades entered, the difference thereon but not the total value of contract.

Tax Treatment of Derivatives under Income Tax Act

Prior to Financial Year 2005–06, transaction in derivatives were considered as speculative transactions for the purpose of determination of tax liability under the Income-tax Act. This was in view of then section 43(5) of the Income -tax Act Tax, 1961. Finance Act, 2005 has amended section 43(5) so as to exclude transactions in derivatives carried out in a "recognized stock exchange" for this purpose. This implies that income or loss on derivative transactions which are carried out in a "recognized stock exchange" is not taxed as speculative income or loss.

Bibliographic References:

- 1. Securities Contracts (Regulation) Act, 1956
- 2. ICAI FAQ on 'How to compute Turnover in case of Future & Option, Speculation for Tax Audit
- 3. Income Tax Act, 1961
- 4. http://www.sebi.gov.in/faq/derivativesfaq.html