Financial Derivatives and Risk Management – Theory and practice

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Abstract

The main aim of creating and using of forward and future contracts and options is to make profit. This kind of financial instruments are very innovative as it reduces the transactional cost and benefits both investors and the organization. The primary purpose of futures, forwards and option to enable to investors to have a control over risks and protect themselves especially from fluctuating in the prices of stocks and assets in financial markets.

Introduction

Derivatives or financial securities are called as large group of financial instruments, as its values are derived from the underlying stocks. They never reflect either shares or bonds, but take with them kind of contingent rights to other forms of financial assets. The prices of derivatives not only depends upon the supply and demand aspects, besides it depends on some other market factors. Derivatives are playing a significant role in business and risk management in the financial markets. The level of risk which is taken by the investors are usually compensated by the high amount of rewards. These financial derivatives are widely used by speculators and hedger. The following are the important aspects of Derivatives that are illustrated in the following manner.

Objectives

- To understand the operational and theoretical concepts of financial derivatives
- To know the operations of Forward contract, Future contract and Options
- To differentiate between forward contract and future contract

Literature review

The implementation of liberalization in trade as well as in financial markets in 1990s has brought many changes in the financial markets operated in India. The creation of autonomous body Securities and Exchange Board of India (SEBI) paved the way for transparency and accountability. The newly established institutions such as National Stock Exchange (NSE), National Securities Clearing Corporation (NSCL) and National Securities

Depositories (NSDL) have helped the entire financial market to clean the existing system and ensures the safety for investors. (Golaka C Nath, NSE)

Forward Contracts – forwards contracts are the simplest form of financial derivatives. This is the contract made between buyer and seller on agreed terms and express their will, the delivery of specified amount of quantity and standard of quality of the underlying assets on particular date in future. The purchase and selling prices of contract would be decided in advance. The forward contracts has the following two important aspects.

Cash markets – securities are traded and the delivery and payment will be made immediately, it would not exceed more than 5 days.

Futures – under this situation billing, delivery of securities and payment will be carried out on a specified date in future

In simple terms it can be defined as the forward contracts or future contracts is agreement made between two parties such as buyer and seller, on a sale of particular assets , to be delivered on certain date and its payment will be made in the future specified date. The first stock exchange which was created the future contract was CBOT in Chicago. In March 12, 1851three thousands bushels of corn in June.

Characteristics of Forward Contracts

- It is a classic future contracts and not a standardized one
- Forward contracts are adjusted to the specific needs of contracting parties
- Transactions of Future contracts are taking place in the Over The Counter exchange market
- Its transactions never involve any kind of clearing house activities as like other secondary market instruments

Forward position can take the following twofold, namely

Long – the terms of purchase of assets like time, prices and other things specified in the contract, then it is said to be long.

Up – when the sale of an assets are predetermined and specified in the future contract then it is categorized as 'Up'.

Futures contract

Future contracts are similar to that of Forward contracts. It is true that the futures are created resulting from the forward contracts, which represents the modern types of newer version of futures contract. Both forward contracts and future contracts are identical to each other in one side – the seller promised to deliver specified

assets in exactly the specified time and agreed price, on the other side buyer is committed to take over the specific assets and make the payment in pre determined prices and date.

Future defined as 'it is the contract that makes delivery of goods, currency or any other financial instrument at a pre – determined future prices and the contract term in the future'

Future is a will of expression of two parties namely buyer and seller of the underlying assets, price, time and delivery. In future contract, buyer and seller sign a contract with a pre-determined price, or the payment may not be made if the goods are not delivered. Also the contract defines the condition of delivery and the payment will be initiated only when the conditions are met.

Difference between Futures and Forward contracts

Future contracts are generally traded on the organized exchange whereas the forward contracts are privately traded. Future contracts are generally highly standardized instrument and highly liquid in nature. As it is more liquid so the mode of payment will differs. As not like forwards the delivery of underlying asset not linked to specific date, rather it specifies the month of delivery. Also it has some freedom in delivery, but the seller is supposed to inform the clearing house through customer. Also there is future markets are keenly watched and regulated by government, while forward market is not regulated. In Forward contracts no advance payment before maturity period as the maturity date is carried out with delivery and payment, but in futures the buyer and seller need to make deposit as a security, which ranges from 5 – 15% of the contract value. The futures can be listed and traded in the stock exchanges and the participant can be classified into

Hedger – hedgers are the investors who wants to protect themselves from unexpected loss and risk due to the fluctuations in the price, but it would bring some security and certainty to their investments.

Speculators – they are also participants in the futures but their main motive is make trading profit not against risk due to price changes. They accept risk associated with buying and selling of futures and ready to take high level of risk by buying and selling of futures to earn. The following are types f speculators

Scalpel – they immediately react to minimum level of changes in the market prices

Day traders – they actively buy and sell the asset within the day itself

Positional traders – they aims to trade for holding position for more than a day

Types of Future contracts

Edge – this kind of future contracts include different commodities like metals, gas, oil, agricultural related products and sometime consisting of market indices.

Financial futures – it is made up of from some financial instruments such as different currencies, foreign exchange, futures on market index, interest rate on futures on securities

Commodity futures – it is standardized contact between the buyer and seller, where they buyer would accept the delivery of good with a agreed price on specified data. The underlying assets are mainly agricultural products such as grains, oil and precious metals like gold, silver etc.,

Currency futures – currency futures are mainly used by speculators and hedgers to gain immediate profit. It is mostly traded on the different country's currencies. There will be arbitrators who is ready to make profits from the temporary variation in the prices.

Interest futures – it is kind of future trade that takes place between buyer and seller who is supposed to deliver and buyer need to accept the delivery on specified period of time. The underlying assets are mainly some financial instruments.

Index – Futures – index futures are traded between the buyer and seller and Its price movements based on the variations in the prices of index as it is traded on market index.

Characteristics of Future contract

- Future contracts are traded in the organized stock exchange which has a physical place, they are traded in Over The Counter (OTC) exchange market.
- In future contract both buyer's and seller's contracts are standardized
- The exchanges are acting like clearing house as it clears the transactions which are struck in the middle of trading floor.
- Like all other exchanges, the future contract market allows only its registered member to trade who is need to fulfill the margin requirement. The margin is generally between 2.5% to 10%.
- The future contract market uses the term called marking to market. It means at the end of the every day, all outstanding contracts are finalized on the settlement prices of the trading session.
- Actual delivery of future contract is very rare, as most of the investors used as hedge purpose against the price rise, they used to close it on the trading day itself. So there would not be chances for acquisition of assets for long time.

Options

Option is a contract between two parties which have the right to buy or sell the contract. Option holders have the legal power to do something, but not the obligation. So the options are only the right and it is not an obligation to buy or sell an underlying asset at a certain price with specified date. Options are essential specific and closely relates to the forward contracts and future contracts or any other financial instruments. In sometimes the options fall under derivative securities which not related t financial instruments. The organized trade options were introduces before 40 years, in 1973 it was introduced in the US Chicago market and actively traded. But options are something more specific kinds of securities as it leaves the choice to holders whether to buy or sell. But the basic difference between futures and forward contracts and option is the former gives an obligation to buy or sell, the later would not give any obligation, rather it gives the right alone. The options can be classified into call option and put option. Apart from this, there are various kinds of options available based on the selected criteria.

Conclusion

With the help of the financial derivatives such as future contracts, forward contract and options, the investors can able to prevent risk that are associated with trading of securities. The main essence of these agreements consist of the fact that these financial contracts both buyer and seller have the obligation to make financial transactions on a specified date with pre determined price. Another important aspect of the financial derivative is the both parties need not to pay any premium or pay any commission at the time of signing contract. It would significantly reduce the transaction cost and paves the way for fair business practices. It very important to remark that future contracts, forward contracts and options are very powerful instruments of hedging which is used by the investors to protect from any kinds of risks. If the financial derivatives are not effectively used then it cannot eliminate the risk of price changes, fluctuations in the market trends, changes in the interest rates.

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