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DERIVATIVES MARKET IN INDIA

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ABSTRACT

Due to the wave of globalization and liberalization across the world , risk is a feature of capital and commodity markets which effect variations in financial assets prices, interest rates and exchange rates, and subsequently, to exposing the corporate world to financial risk . The derivatives market provides an effective solution to the problem of risk embedded in the price of the underlying asset. In India , the emergence and growth of derivatives market is relatively a recent phenomenon. Since its inception in June 2000 , derivatives market shows growth both in terms of volume and number of traded contracts and derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts . In this article ,focus is on types of derivative products and its scope . Financial derivatives are available in the forms of currency forwards and options . Safety of international finanacial transaction , new financial instruments such as currency and interest rate , futures , options , swaps and analysis of derivative trading in India with the status of global derivatives markets vis-a–vis the Indian derivatives market . The focus is on Potential of Derivative Market in India.

Keywords: *Forward, Futures, Options, Financial Derivatives, Risk Management*

INTRODUCTION

Financial management influenced by the presence of derivatives The asset underlying a *derivative* may be commodity or a financial asset , stock or currency . Derivatives are those financial instruments that derive their value from the other assets . The objective are speculation and hedging , in order to take position in the expectation of profit (speculation) or uses these instrument to reduce the risk associated with day to day management of cash flow (hedging) .

PARTICIPANTS IN DERIVATIVES MARKET

1. **Hedgers--** use derivatives markets to reduce or eliminate the risk associated with price of an asset. Majority of the participants in derivatives market belongs to this category.

2**. Speculators--** transact *futures* and *options* contracts to get extra leverage in betting on future movements in the price of an asset and increase both the potential gains and potential losses by usage of derivatives in a speculative venture.

3. **Arbitrageur**s--The desire to take advantage of a discrepancy between prices of more or less the same assets or competing assets in different markets .The futures price of an asset getting out of line with the cash price, take offsetting positions in the two markets to lock in a profit.

CLASSIFICATION OF DERIVATIVES

The value of a derivative instrument depends upon the underlying asset. The **Underlying asset** may assume many forms :

i. Commodities including grain, coffee beans, orange juice;
ii. Precious metals like gold and silver;
iii. Foreign exchange rates or currencies;
iv. Bonds of different types, including medium to long term negotiable debt securities issued by governments, companies, etc.
v. Shares and share warrants of companies traded on recognized stock exchanges and Stock Index
vi. Short term securities such as T-bills; and
vii. Over- the Counter (OTC) money market products such as loans or deposits.

Financial Derivatives :

Section 2(ac) of Securities Contract Regulation Act (SCRA) 1956 defines Derivative as:
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.

EVOLUTION OF DERIVATIVES

Derivatives :

a.) "a contract which derives its value from the prices, or index of prices, of underlying securities
(a). derived function: the result of mathematical differentiation ; the instantaneous change of one quantity relative to another;
(b) derivative instrument: a financial instrument whose value is based on another security, (linguistics) a word that is derived from another word; "`electricity' is a derivative of 'electric '.The price of gold to be delivered after two months will depend, among so many things, on the present and expected price of this commodity.

(1.) **The forward trading** was in existence during 12th century in England and France . Forward trading of Rice was started in 17th century in Japan , known as Cho-at-Mai a kind (rice trade-on-book) concentrated around Dojima in Osaka, later on the trade in rice grew with a high degree of standardization . In 1730, this market got official recognition from the Tokugawa Shogurate. As such , the Dojima rice market became the first futures market in the sense that it was registered on organized exchange with the standardized trading norms .The butter and eggs dealers of Chicago Produce Exchange joined hands in 1898 to form the Chicago Mercantile Exchange for futures trading. The

exchange provided a futures market for many commodities including porkbellies (1961), live cattle (1964), live hogs (1966), and feeder cattle (1971) . The basic cause of forward trading was to cover the price risk , transporting goods from one market to others took many months , as in the 1800s , food grains produced in England sent through ships to the United States which normally took few months . Sometimes , during this time, the price show due to fluctuation events before the goods reached to the destination. The producers had to sell their goods at loss. Therefore , the producers sought to avoid such price risk by selling their goods forward . The basic idea behind this move at that time was simply to cover future price risk. On the opposite side, the speculator or other commercial firms seeking to offset their price risk came forward to go for such trading. The forward trading in commodities came into existence and agreements were formed to buy and sell food grains in the future for actual delivery at the predetermined price . These agreements became transferable, and during the American Civil War period, Le., 1860 to 1865, it became common place to sell and resell such agreements where actual delivery of produce was not necessary. Gradually, the traders realized that the agreements were easier to buy and sell if the same were standardized in terms of quantity, quality and place of delivery relating to food grains. In the nineteenth century this activity was centered in Chicago which was the main food grains marketing centre in the United States.

(2**.) The future trading** is futures markets , developed after the development of forward markets. In 1972 , for futures trading in foreign currencies , the International Monetary Market formed as a division of the Chicago , Mercantile Exchange . In 1982 , it introduced a futures contract on the S&P 500 Stock Index . Many other exchanges throughout the world now trade futures contracts . Among these are the Chicago Rice and Cotton Exchange , the New York Futures Exchange , the London International Financial Futures Exchange , the Toronto Futures Exchange and the Singapore International Monetary Exchange . During 1980's, markets developed for options in foreign exchange, options on stock indices, and options on futures contracts. The Philadelphia Stock Exchange is the premier exchange for trading foreign exchange options .The Chicago Board Options Exchange trades options on the S&P 100 and the S&P 500 stock indices while the American Stock Exchange trades options on the Major Market Stock Index, and the New York Stock Exchange trades options on the NYSE Index . Most exchanges offering futures contracts now also offer options on these futures contracts. Thus, the Chicago Board of Trades offers options on commodity futures, the Chicago Mercantile Exchange offers options on live cattle futures, the International Monetary Market offers options on foreign currency futures , and so on.

Derivative market become active in 1998 due to surge in equity market and changing expectations about interest rates and exchange rates . Cross country derivative and credit derivatives became popular instruments in world financial market . Significant changes have taken place in recent years in international financial market . **Derivatives -** In the Year 1999 , Derivatives term refers to a broad class of financial instruments which mainly include *options* and *futures* . These instruments derive their value from the price and other related variables of the underlying asset . They

do not have worth of their own and derive their value from the claim they give to their owners to own some other financial assets or security. As derivative is butter , which is derivative of milk . The price of butter depends upon price of milk , which in turn depends upon the demand and supply of milk is derivatives means to derive something from something else. **Financial Derivatives options** are customized contracts traded privately between the parties. A call options gives the holder (buyer/one who is long call) , the right to buy specified quantity of the underlying asset at the strike price on or before expiration date. The seller (one who is short call) however, has the obligation to sell the underlying asset if the buyer of the call option decides to exercise his option to buy.

a. **Commodity derivatives**-- as a tool for managing risk in commodities markets . In commodity derivatives, the underlying asset is a commodity, agricultural commodity like wheat , soyabeans , rapeseed, cotton etc. or precious metals like gold, silver etc.

b. **Financial derivatives**-- a variety of financial instruments including stocks, bonds , treasury bills, interest rate, foreign currencies and other hybrid securities and include futures, forwards, options, swaps , etc.

(a). Futures contracts are the most important form of derivatives, which are in existence long before the term 'derivative' was coined . The modern futures contracts first came into existence in

1. 1848 with the establishment of the Chicago Board of Trade (CBOT), and today, it is the largest futures market of the world .
2. 1865 , the CBOT framed the general rules for such trading which later on became a trendsetter for so many other markets.
3. 1874, the Chicago Produce Exchange was established which provided the market for butter, eggs, poultry, and other perishable agricultural products.
4 1877, the London Metal Exchange came into existence, and today, it is leading market in metal trading both in spot as well as forward.
5. 1898, the butter and egg dealers with drew from the Chicago Produce Exchange to form separately the Chicago Butter and Egg Board.
6. 1919 this exchange was renamed as the Chicago Mercantile Exchange (CME) and was reorganized for futures trading . Since then, so many other exchanges came into existence throughout the world which trade in futures contracts.
7. 1970s although financial derivatives have been in operation since long and become a major force in financial markets. The basic reason behind this development was the failure of Brettonwood System and the fixed exchange rate regime was broken down. The new exchange rate regime , i.e. floating rate (flexible) system based upon market forces came into existence . But due to demand and supply of different currencies, the exchange rates were constantly changing , and often , substantially.
8. The business firms faced a new risk, currency or foreign exchange risk . Accordingly, a new financial instrument was developed to overcome the risk in the new financial environment .

(i) Another important reason for the instability in the financial market was fluctuation in the short-term interests , due to that most of the government tried to manage foreign exchange fluctuations through short-term interest rates and by maintaining money supply targets, but which can be contrary to each other.

(ii) the increased instability of short-term interest rates created adverse impact on long-term interest rates ,and instability in bond prices , because they are largely determined by long-term interest rates.

(iii) interest rate risk , for both the issuers and the investors of debt instruments. Interest rate fluctuations had not only created instability in bond prices, but also in other long-term assets such as, company stocks and shares.

(iv) Share prices are determined on the basis of expected present values of future dividend payments discounted at the appropriate discount rate. Discount rates are usually based on long-term interest rates in the market . So increased instability in the long-term interest rates caused enhanced fluctuations in the share prices in the stock markets . Further volatility in stock prices is reflected in the volatility in stock market indices which causes systematic risk or market risk.

(b) Swaps Contract

A swap can be defined as a barter or exchange. It is a contract whereby parties agree to exchange obligations that each of them have under their respective underlying contracts or we can say, a swap is an agreement between two or more parties to exchange stream of cash flows over a period of time in the future. The parties that agree to the swap are known as counter parties. The two commonly used swaps are: i) **Interest rate swaps** which entail swapping only the interest related cash flows between the parties in the same currency, and ii**) 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 the cash flows in the opposite direction

© Forward Contract

A forward contract is an agreement between two parties to buy or sell an asset at a specified point of time in the future. In case of a forward contract the price which is paid/ received by the parties is decided at the time of entering into contract. It is the simplest form of derivative contract mostly entered by individuals in day to day's life. Forward contract is a cash market transaction in which delivery of the instrument is deferred until the contract has been made. Although the delivery is made in the future, the price is determined on the initial trade date. One of the parties to a forward contract assumes a long position (buyer) and agrees to buy the underlying asset at a certain future date for a certain price. The other party to the contract known as seller assumes a short position and agrees to sell the asset on the same date for the same price. The specified price is referred to as the delivery price. The contract terms like delivery price and quantity are mutually agreed upon by the parties to the contract .No margins are generally payable by any of the parties to the other. Forwards contracts are traded over-the- counter

and are not dealt with on an exchange unlike futures contract. Lack of liquidity and counter party default risks are the main drawbacks of a forward contract.

(d) Futures Contract

Futures is a standardized forward contact to buy (long) or sell (short) the underlying asset at a specified price at a specified future date through a specified exchange. Futures contracts are traded on exchanges that work as a buyer or seller for the counterparty. Exchange sets the standardized terms in term of Quality, quantity, Price quotation, Date and Delivery place (in case of commodity).

The features of a futures contract may be specified as follows:

(i)These are traded on an organized exchange like IMM, LIFFE, NSE, BSE, CBOT etc.

(ii) These involve standardized contract terms viz. the underlying asset, the time of maturity and the manner of maturity etc.

(iii) These are associated with a clearing house to ensure smooth functioning of the market.

(iv)There are margin requirements and daily settlement to act as further safeguard.

(v) These provide for supervision and monitoring of contract by a regulatory authority.

(vi) . Almost ninety percent future contracts are settled via cash settlement instead of actual delivery of underlying asset.

Futures contracts being traded on organized exchanges impart liquidity to the transaction. The clearing house, being the counter party to both sides of a transaction, provides a mechanism that guarantees the honoring of the contract and ensuring very low level of default .

Following are the important types of financial futures contract:-

(i). Stock Future or equity futures,

(ii) .Stock Index futures,

(iii). Currency futures, and

(iv). Interest Rate bearing securities like Bonds, T- Bill Futures.

(e) . Options Contract

In case of futures contact, both parties are under obligation to perform their respective obligations out of a contract. But an options contract, as the name suggests, is in some sense, an optional contract. An option is the right, but not the obligation, to buy or sell something at a stated date at a stated price. A "call option" gives one the right to buy; a "put option" gives one the right to sell. Options are the standardized financial contract that allows the buyer (holder) of the option, i.e. the right at the cost of option premium, not the obligation, to buy (call options) or sell (put options) a specified asset at a set price on or before a specified date through exchanges.

Options contracts are of two types: c*all* options and p*ut* options. Apart from this, options can also be classified as OTC (Over the Counter) options and exchange traded options. In case of exchange traded options contract, contracts are standardized and traded . Risk is a characteristic feature of most commodity and capital markets. Variations in the prices of agricultural and non-agricultural

commodities are induced, over time, by demand-supply dynamics. The last two decades have witnessed many-fold increase in the volume of international trade and business due to the wave of globalization and liberalization sweeping across the world. This has led to rapid and unpredictable variations in financial assets prices, interest rates and exchange rates, and subsequently, to exposing the corporate world to an unwieldy financial risk. In the present highly uncertain business scenario, the importance of risk management is much greater than ever before. The emergence of derivatives market is an ingenious feat of financial engineering that provides an effective and less costly solution to the problem of risk that is embedded in the price unpredictability of the underlying asset. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. Since its inception in June 2000 , derivatives market has exhibited exponential growth both in terms of volume and number of traded contracts. The market turn-over has grown in a short span , derivatives trading in India has surpassed cash segment in terms of turnover and number of traded contracts.

SCOPE

Some of the applications of financial derivatives can be enumerated as follows :

1. **Management of risk*:*** This is most important function of derivatives. Risk management is not about the elimination of risk rather it is about the management of risk. Financial derivatives provide a powerful tool for limiting risks that individuals and organizations face in the ordinary conduct of their businesses. It requires a thorough understanding of the basic principles that regulate the pricing of financial derivatives. Effective use of derivatives can save cost, and it can increase returns for the organizations .

2. **Efficiency in trading**: Financial derivatives allow for free trading of risk components and that leads to improving market efficiency. Traders can use a position in one or more financial derivatives as a substitute for a position in the underlying instruments. In many instances, traders find financial derivatives to be a more attractive instrument than the underlying security. This is mainly because of the greater amount of liquidity in the market offered by derivatives as well as the lower transaction costs associated with trading a financial derivative as compared to the costs of trading the underlying instrument in cash market.

3. **Speculation***:* This is not the only use, and probably not the most important use, of financial derivatives. Financial derivatives are considered to be risky. If not used properly, these can leads to financial destruction in an organization . However , these instruments act as a powerful instrument for knowledgeable traders to expose themselves to calculated and well understood risks in search of a reward, that is , profit.

4. **Price discover***:* Another important application of derivatives is the price discovery which means revealing information about future cash market prices through the futures market. Derivatives markets

provide a mechanism by which diverse and scattered opinions of future are collected into one readily discernible number which provides a consensus of knowledgeable thinking.

5. **Price stabilization function***:* Derivative market helps to keep a stablizing influence on spot prices by reducing the short-term fluctuations. In other words, derivative reduces both peak and depths and leads to price stablization effect in the cash market for underlying asset .

DERIVATIVE MARKET AND AN APPRAISAL

In the early 1970s , the financial markets were highly instable , so many financial derivatives have been emerged as the means to manage the different types of risks and also for taking advantage of it. The first financial futures market was the International Monetary Market, established in 1972 by the Chicago Mercantile Exchange which was followed by the London International Financial Futures Exchange in 1982. The Forwards Contracts (Regulation) Act, 1952 , regulates the forward/futures contracts in commodities all over India . As per this the Forward Markets Commission (FMC) continues to have jurisdiction over commodity forward/futures contracts. When derivatives trading in securities was introduced in 2001, the term 'security' in the Securities Contracts (Regulation) Act, 1956 (SCRA), was amended to include derivative contracts in securities. Consequently, regulation of derivatives came under the preview of Securities Exchange Board of India (SEBI) . We thus have separate regulatory authorities for securities and commodity derivative markets.

Derivatives markets in India have been in existence in one form or the other for a long time. In the area of commodities , the Bombay Cotton Trade Association started futures trading way back in 1875. In 1952, the Government of India banned cash settlement and options trading. Derivatives trading shifted to informal forwards markets. In recent years, government policy has shifted in favor of an increased role of market-based pricing and less suspicious derivatives trading. The first step towards introduction of financial derivatives trading in India was the promulgation of the Securities Laws (Amendment) Ordinance, 1995. It provided for withdrawal of prohibition on options in securities. The last decade, beginning the year 2000, saw lifting of ban on futures trading in many commodities. Around the same period, national electronic commodity exchanges were also set up. Derivatives trading commenced in India in June 2000 after SEBI granted the final approval to this effect in May 2001 on the recommendation of L. C Gupta committee. Securities and Exchange Board of India (SEBI) permitted the derivative segments of two stock exchanges, NSE and BSE, and their clearing house/corporation to commence trading and settlement in approved derivatives contracts. Initially, SEBI approved trading in index futures contracts based on various stock market indices. Derivative indicates that it has no independent value, i.e., its value is entirely derived from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, livestock or anything else. The Securities Contracts (Regulation) Act 1956 defines 'derivative' as under: 'Derivative' includes– Security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security. A contract which derives its value from the

prices, or index of prices of underlying securities. Over–the-counter security is a security which is not traded on an exchange, usually due to inability to meet listing requirements. For such securities, broker/dealers negotiate directly with one another over computer networks and by phone. In OTC market security transactions are made via telephone and computer rather than on floor of exchange **.**

(II) Potential of Derivative Market in India

(i) . The growth and expansion of financial derivative of NSE in India is favorable , 2013-2014 to 2017-18 .The market turnover has grown from Rs.38,21,140.05 Cr. in 2013-2014 to 1,16,35,39816.124 Cr. in 2017-18 and , average daily turnover from Rs.1,55,557.68 Cr. in 2013-2014 to Rs.6,78,588 .45 Cr. in 2017-18

(ii) . The Business Growth is from Rs.40,12,513.45 in 2013-2014 to Rs.50,03,07,100 Cr in 2017-18 and average daily turnover from Rs.1,644.73 Cr. in 2013-2014 to Rs.20,759.63 Cr. existing currency futures and option**.**

(iii) . The Product wise growth is from 3,82,11,408.05 Cr. in 2013-2014 to Rs. 16,49,84,859.05 Cr. in 2017-18 existing futures and option of index and stock.

(iv) . In NSE Index Future No. of Contracts 1,42,64,860 and Turnover Rs. 1,06,00,38.31 Cr. and Options No. Of contracts 66,07,76,383 and Turnover Rs. 1,43,450.52 Cr. The Stock Futures and Options No. Of Contracts -4,46,65,702 and 32,179,199 & Turnover Rs. 1,26,63,198.99 Cr. and Rs. 3,642.95 Cr. in 2019-20.

(v). The total no. of contracts in 2018-19 is 3,167,1,83,212 and 2019-20 is 75,18,86,144 and turnover Rs. 23,95,90,973.69 Cr. 2018-19 and Rs. 5,07,67,195.97 Cr. in 2019-20.

CONCLUSION

The Potential of Derivative Market in India expose the derivatives segment has expanded in the recent years in a substantial way both globally as well as in the Indian capital market. Equity derivatives market in India has registered an explosive growth and is expected to continue the same in the years to come . Introduced in 2000, financial derivatives market in India has shown a remarkable growth both in terms of volumes and numbers of traded contracts. NSE alone accounts for 99 percent of the derivatives trading in Indian markets. The introduction of derivatives has been well received by stock market players. Trading in derivatives gained popularity soon after its introduction. In due course, the turnover of the NSE derivatives market exceeded the turnover of the NSE cash market In case of BSE, index futures outperform stock futures. An important feature of the derivative segment of NSE which may be observed from and is the huge gap between average daily transactions of its derivatives segment and cash segment. In sharp contrast to NSE, the situation at BSE is just the opposite: its cash segment outperforms the derivatives segment as can be seen from . India is one of the most successful

developing countries in terms of active market for exchange traded derivatives **.** The risk is a feature of capital and commodity markets which effect variations in financial assets prices , interest rates and exchange rates, and exposing the corporate world to financial risk . The Future Prospects & Challenges in derivatives market provides an effective solution to the problem of risk embedded in the price of the underlying asset . In India , financial derivatives are available in the forms of currency forwards and options . Equity derivatives-permitted to be traded in SEBI , recognized stock exchanges . In India , the emergence and growth of derivatives market and since its inception in June 2000, derivatives market shows exponential growth both in terms of volume and number of traded contracts. The financial integration in the sense of innovation of derivatives have redefined and revolutionized the landscape of financial industry across the world and derivatives have earned a well deserved and extremely significant place among all the financial products. The benefit is , derivatives the risk management tool that help in effective management of risk by various stakeholders . It provide an opportunity to transfer risk , from the one who wish to avoid it ; to one, who wish to accept it. India's experience with the launch of equity derivatives market has been extremely encouraging and successful. The derivatives turnover on the NSE has surpassed the equity market turnover. Significantly, its growth in the recent years has surpassed the growth of its counterpart globally. India is one of the most successful developing countries in terms of active market for exchange-traded derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous safe and secure electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery. Factors like increased volatility in financial asset prices; growing integration of national financial markets with international markets; development of more sophisticated risk management tools; wider choices of risk management strategies to economic agents and innovations in financial engineering, have been driving the growth of financial derivatives worldwide and have also fuelled the growth of derivatives here, in India.

BIBILIOGRAPHY

- **Gaurav Dutt & Ashwani Mahajan ,Indian Economy,S,Chand Publishing,2019.**
- **Dhingra I .C , The Indian Economy Environment and Policy,Sultan Chand & Sons,2018.**
- **Mishra,V.K. & Puri,S.K., The Indian Economy,Himalayan Publishing ,2018.**
- **wwwbse.com**
- **www.derivatives.com**
- **www.indianeconomy.com**
- **wwwnse.com**