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WHITHER DERIVATIVES IN INDIA?

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ABSTRACT

Derivatives emerged in India to cater to the needs of changing paradigms of stock market transactional settlement. Not only that, even to ensure the liquidity level of markets and risk management for the players, the derivatives are developed on the lines of the global experience and practices. Hence, derivatives became darling of financial markets particularly to stock markets as they were dancing to the music played by the forces of the market. In recent past the derivatives stood as a cause for biggest failure of many financial companies in America, that has turned into financial crises afterwards and trumbled the global financial system. Fortunately as India could not understand the algebra of derivatives, the banks and financial institutions of India were not in the fray of crises created by Derivatives. However, derivatives have been helping a lot in the risk management of investment and bringing up the new and innovative financial services in a gigantic way. But one thing is not understood that right from the inception of derivatives on index based in India, unlike the global countries that what is happening time to time in the derivatives market, particularly in terms of trends. So the present paper makes a modest attempt to discuss the concept, trends and the impact of derivatives on equity market in a comprehensive manner.

KEYWORDS
Derivatives, stock market, transactional settlement, liquidity.

INTRODUCTION

Financial markets are, by nature, extremely volatile and hence the risk factor is an important concern for financial agents. To reduce this risk concept of derivatives come into the picture. Derivatives are products whose values are derived from one or more basic variables called bases. These bases can be underlying assets (for example forex, equity, etc) or reference rates. For example, wheat farmers may wish to sell their harvest at a future date to eliminate the risk of a change in prices by that date. The transaction in this case would be the derivative, while the spot price of wheat would be the underlying asset.

In 1848, the Chicago Board Of Trade (CBOT) was established to bring farmers and merchants together. A group of traders got together and created the 'to-arrive' contract that permitted farmers to lock into price upfront and deliver the grain later. These to-arrive contracts proved useful as a device for hedging and speculation on price changes. These were eventually standardized, and in 1925 the first futures clearing house came into existence. Hence, today derivatives contracts exist on variety of commodities such as corn, pepper, cotton, wheat, silver etc. Besides, derivatives contracts also exist on a lot of financial underlying like stocks, interest rate, exchange rate, and what not?

NEED OF THE STUDY

Derivatives market started in India in recent origin, whereas American and European countries started trading derivatives long before. Not only that, even for the replacement of the badla and undhabadla system of trading the derivatives market is found and established as an alternative market. So, all the time there would be a need for a study to analyze the practices, problems and prospects of derivative market in India.

OBJECTIVES OF THE STUDY

The main objective of the paper is to analyse the journey of financial derivatives in India. The other specific objectives are:

1. To study the basic concepts and terminology of various Derivative products like Futures and Options.
2. To know the role of derivatives trading in India.
3. To study the trends of Derivatives Market in India.
4. To study the impact of Derivatives on Financial Markets.
5. To depict the growth of Derivatives in India.

DATA SOURCES AND METHODOLOGY

The present study is an analytical one and empirical one. It uses secondary data that has been collected from various secondary sources like newspapers, magazines, research journals, RBI reports, SEBI Bulletin and NSE publications. Data thus collected is analysed and presented in terms of products of Derivatives, settlement statistics and Business growth of Derivatives in India.

REVIEW OF LITERATURE

Plethora of studies is found on Financial Derivatives. Some of the important studies are reviewed in following lines. (Bhaumik 1998) Financial derivatives are powerful instruments that can facilitate hedging against volatility in exchange rates, interest rates and securities price. Derivatives are recognized as the best and most cost efficient way of meeting the felt need for risk hedging in certain in certain types of commercial and financial operations.

(Parmjit Kaur, 2001) Countries not providing such globally accepted risk hedging facilities are disadvantaged in today's rapidly integrating global economy. (Deana Mehta, 2005) Share futures are most successful in India than anywhere else in the world because they are seen as a substitute for badla. The new system has to better than the old one and not add to risk in the market.

TYPES AND ROLE OF DERIVATIVES

TYPES

The most commonly used derivatives contracts are Forward, Futures and Options. Here some of the important derivative contracts that have come to be used are covered.

a. FORWARD: A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price. . Forwards are contracts customizable in terms of contract size, expiry date and price, as per the needs of the user.

b. FUTURES: As the name suggests, futures are derivative contracts that give the holder the opportunity to buy or sell the underlying at a pre-specified price sometime in the future. They come in standardized form with fixed expiry time, contract size and price A futures contact is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts.

c. OPTIONS: Options are a right available to the buyer of the same, to purchase or sell an asset, without any obligation. It means that the buyer of the option can exercise his option but is not bound to do so. Options are of two types: calls and puts. Call gives the buyer the right, but not the obligation, to buy a given quantity of the underlying asset, at a given price, on or before a given future date. Put gives the buyer the right, but not the obligation, to sell a given quantity of the underlying asset, at a given price, on or before a given date.

In both the types of the options, the seller of the option has an obligation but not a right to buy or sell an asset. His buying or selling of an asset depends upon the action of buyer of the option. His position in both the type of option is exactly the reverse of that of a buyer.

d. WARRANTS: Options generally have lives of up to one year, the majority of options exchanges having a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.

e. LEAPS: The acronym LEAPS means Long-Term Equity Anticipation Securities. These are options having a maturity of up to three years.

f. BASKET: Basket options are options on portfolios of underlying assets are usually a moving average of a basket of assets. Equity index options are a form of basket options.

g. SWAPS: Swaps are private agreement between two parties to exchange cash flows in the future according to a pre arranged formula. They can be regarded as portfolios of forward contract. The two commonly used swaps are INTEREST RATE SWAPS (IRS) and CURRENCY SWAPS (CS). IRS is only the interest related cash flows between the parties in the same currency. Whereas, CS is swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.

h. SWAPTIONS: Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus, a swaptions is an option on a forward swap. Rather than have calls and puts, the swaptions market has receiver swaptions and payer swaptions. A receiver swaptions is an option to receive fixed and pay floating. A payer swaptions is an option to pay fixed and receive floating. Out of the above mentioned types of derivatives forward, future and options are the most commonly used. (See Table I for more details)

ROLE OF DERIVATIVES

Derivatives help a lot investors in many different way, they are:

i) Risk Management

Futures and options contract can be used for altering the risk of investing in spot market. Derivatives help to reallocate risk among investors. A person, who wants to reduce risk, can transfer some of that risk to a person who wants to take more risk. Consider a risk averse individual, who can obviously reduce risk by hedging. When he does so, the opposite position in the market may be taken by a speculator who wishes to take more risk. Since people can alter their risk exposure using futures and options, derivatives help in the raising of capital and mitigating the risk too. As an investor, one can always invest in an asset and then change its risk to a level that is more acceptable by using derivatives.

ii) Price Discovery

Price discovery refers to the market's ability to determine true equilibrium prices. Futures prices are believed to contain information about future spot prices and help in disseminating such information. The futures markets provide a low cost trading mechanism. Not only that, even they provide information pertaining to supply and demand that percolates in the markets. As accurate prices are essential for ensuring the correct allocation of resources in a free market economy, Futures and Options markets provide information about the volatility or risk of the underlying asset for perfect pricing.

iii) Operational Advantages

As opposed to spot markets, derivatives markets involve lower transaction costs. Secondly, they offer greater liquidity. Large spot transactions can often lead to significant price changes. However, futures markets tend to be more liquid than spot markets, because herein you can take large positions by depositing relatively small margins. Consequently, a large position in derivatives markets is relatively easier to take and has less of a price impact as opposed to a transaction of the same magnitude in the spot market. Finally, it is easier to take a short position in derivatives markets than it is to sell short in spot markets.

iv) Market Efficiency

The availability of derivatives makes markets more efficient; spot, futures and options markets are inextricably linked. Since it is easier and cheaper to trade in derivatives, it is possible to exploit arbitrage opportunities quickly and to keep prices in alignment. Hence, these markets help to ensure that prices reflect true values.

v) Ease of Speculation

Derivative markets provide speculators with a cheaper alternative to engaging in spot transactions. Also, the amount of capital required to take a comparable position is less in this case. This is important because facilitation of speculation is critical for ensuring free and fair markets. Speculators always take calculated risks, as they accept a level of risk only if speculator is convinced that the associated expected return is commensurate with the risk that is assumed.

TYPES OF DERIVATIVES MARKET

Derivatives Market can be classified as Exchange Traded Derivatives Market (ETDM) and Over the Counter Derivatives Market (OCDM). ETDs are derivatives that are traded through specialized derivative exchanges, whereas OCDs are those which are privately traded between two parties and involves no exchange or intermediary. Swaps, Options and Forward Contracts are traded in Over the Counter Derivatives Market or OTC market. The main participants of OTC market are the Investment Banks, Commercial Banks, Govt. Sponsored Enterprises and Hedge Funds. The investment banks market the derivatives through traders to the clients like hedge funds and the rest. In the Exchange Traded Derivatives Market or Future Market, exchange acts as the main party and by trading of derivatives actually risk is traded between two parties. One party who purchases future contract is said to go "long" and the person who sells the future contract is said to go "short". The holder of the "long" position owns the future contract and earns profit from it if the price of the underlying security goes up in the future. On the contrary, holder of the "short" position is in a profitable position if the price of the underlying security goes down, as he has already sold the future contract. So, when a new future contract is introduced, the total position in the contract is zero as no one is holding that for short or long. The trading of foreign exchange traded derivatives or the future contracts has emerged as very important financial activity all over the world just like trading of equity-linked contracts or commodity contracts. The derivatives whose underlying assets are credit, energy or metal, have shown a steady growth rate over the years around the world.

PARTICIPANTS IN THE DERIVATIVES MARKET

A) TRADING PARTICIPANTS

i) Hedgers

The process of managing the risk or risk management is called as hedging. Hedgers are those individuals or firms who manage their risk with the help of derivative products. The main purpose for hedging is to reduce the volatility of a portfolio by reducing the risk.

ii) Speculators

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

iii) Arbitrageurs

Arbitrageurs are in business to take advantage of a discrepancy between prices in two different markets. If, for example, they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

B) INTERMEDIARY PARTICIPANTS

iv) Brokers

For any purchase and sale, brokers perform an important function of bringing buyers and sellers together. As a member in any futures exchanges, may be any commodity or finance, one need not be a speculator, arbitrageur or hedger. By virtue of a member of a commodity or financial futures exchange one can get a right to transact with other members of the same exchange. This transaction can be in the pit of the trading hall or on online computer terminal. All persons hedging their transaction exposures or speculating on price movement need not be and for that matter cannot be members of futures or options exchange. A nonmember has to deal in futures exchange through member only. This provides a member the role of a broker. His existence as a broker takes the benefits of the futures and options exchange to the entire economy. Hence, all transactions are done in the name of the member who is responsible for final settlement and delivery.

v) Market Makers and Jobbers

Even in organized futures exchange, every deal cannot get the counter party immediately. It is here the jobber or market maker plays his role. They are the members of the exchange who takes the purchase or sale by other members in their books and then Square off on the same day or the next day. They quote their bid-ask rate regularly. The difference between bid and ask is known as bid-ask spread. When volatility in price is more the spread increases, since jobbers price risk increases. In less volatile market, it is less. Generally, jobbers carry limited risk. Even by incurring loss, they square off their position as early as possible. As they decide the market price considering the demand and supply of the commodity or asset, they are also known as market makers.

C) INSTITUTIONAL FRAMEWORK:

vi) Exchange

Exchange provides buyers and sellers of futures and option contract, the necessary infrastructure to trade. In online trading system, exchange provides access to members and makes available real time information online and also allows them to execute their orders. For derivatives market, to be successful exchange plays a very important role there may be separate exchange for financial instruments and commodities or common exchange for both commodities and financial assets.

vii) Clearing House

A clearing house performs clearing of transactions executed in futures and option exchanges. Clearing house may be a separate company or it can be a division of exchange. It guarantees the performance of the contracts and for this purpose clearing house becomes counter party to each contract. Transactions are between members and clearing house. Clearing house ensures solvency of the members by putting various limits on them. Further, clearing house devises a good managing system to ensure performance of contract even in volatile market. This provides confidence of people in futures and option exchange. Therefore, it is an important institution for futures and option market.

viii) Custodian / Warehouse

Futures and options contracts do not generally result into delivery but there has to be smooth and standard delivery mechanism to ensure proper functioning of market. In stock index futures and options which are cash settled contracts, the issue of delivery may not arise, but it would be there in stock futures or options, commodity futures and options and interest rates futures. In the absence of proper custodian or warehouse mechanism, delivery of financial assets and commodities will be a cumbersome task and futures prices will not reflect the equilibrium price for convergence of cash price and futures price on maturity, custodian and warehouse are very relevant in this regard to settle the transactions very smoothly and effectively.

ix) Bank for fund movements

Futures and options contracts are daily settled for which large fund movement from members to clearing house and back is necessary. This can be smoothly handled if a bank works in association with a clearing house. Bank can make daily accounting entries in the accounts of members and facilitate daily settlement a routine affair. This also reduces a possibility of any fraud or misappropriation of fund by any market intermediary.

x) Regulatory Framework

A regulator creates confidence in the market besides providing Level playing field to all concerned, for foreign exchange and money market, RBI is the regulatory authority so it can take initiative in starting futures and options trade in currency and interest rates. For capital market, SEBI is playing a lead role, along with physical market in stocks; it will also regulate the stock index futures very soon in India. The approach and outlook of regulator directly affects the strength and volume in the market. For commodities, Forward Market Commission is working for settling up National Commodity Exchange.

DEVELOPMENT OF DERIVATIVES MARKET IN INDIA

The first step towards introduction of derivatives trading in India was the promulgation of the Securities Laws (Amendment) Ordinance, 1995, which withdrew the prohibition on options in securities. The market for derivatives, however, did not take off, as there was no regulatory framework to govern trading of derivatives. SEBI set up a 24–member committee under the Chairmanship of Dr.L.C.Gupta on November 18, 1996 to develop appropriate regulatory framework for derivatives trading in India. The committee submitted its report on March 17, 1998 prescribing necessary pre–conditions for introduction of derivatives trading in India. The committee recommended that derivatives should be declared as 'securities' so that regulatory framework applicable to trading of 'securities' could also govern trading of securities. SEBI also set up a group in June 1998 under the Chairmanship of Prof.J.R.Varma, to recommend measures for risk containment in derivatives market in India. The report, which was submitted in October 1998, worked out the operational details of margining system, methodology for charging initial margins, broker net worth, deposit requirement and real–time monitoring requirements.

The Securities Contract Regulation Act (**SCRA**) was amended in December 1999 to include derivatives within the ambit of 'securities' and the regulatory framework was developed for governing derivatives trading. The act also made it clear that derivatives shall be legal and valid only if such contracts are traded on a recognized stock exchange, thus precluding OTC derivatives. The government also rescinded in March 2000, the three– decade old notification, which prohibited forward trading in securities. Derivatives trading commenced in India in June 2000 after SEBI granted the final approval to this effect in May 2001. 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. To begin with, SEBI approved trading in index futures contracts based on S&P CNX Nifty and BSE–30(Sensex) index.

This was followed by approval for trading in options based on these two indexes and options on individual securities. The trading in BSE Sensex options commenced on June 4, 2001 and the trading in options on individual securities commenced in July 2001. Futures contracts on individual stocks were launched in November 2001. The derivatives trading on NSE commenced with S&P CNX Nifty Index futures on June 12, 2000. The trading in index options commenced on June 4, 2001 and trading in options on individual securities commenced on July 2, 2001. Single stock futures were launched on November 9, 2001. The index futures and options contract on NSE are based on S&P CNX Trading and settlement in derivative contracts is done in accordance with the rules, byelaws, and regulations of the respective exchanges and their clearing house/corporation duly approved by SEBI and notified in the official gazette. Foreign Institutional Investors (FIIs) are permitted to trade in all Exchange traded derivative products. (See Table I for details on Products available on Derivatives)

EQUITY DERIVATIVES IN INDIA

In the decade of 1990's revolutionary changes took place in the institutional infrastructure in India's equity market. It has led to wholly new ideas in market design that has come to dominate the market. The market impact cost of doing program trades of Rs.5 million at the NIFTY index is around 0.2%. This state of liquidity on the equity spot market does well for the market efficiency that was to be closely observed with the index futures market when trading commences. India's equity spot market is dominated by a new practice called 'Futures – Style settlement' or account period settlement. In its present scene, trade on the largest stock exchange (NSE) are netted from Wednesday morning till Tuesday evening, and only the net open position as of Tuesday evening is settled. The market capitalization of the NSE-50 index is Rs.2.6 trillion. This is six times larger than the market capitalization of the largest stock and 500 times larger than stocks such as Sterlite, BPL and Videocon.

If market manipulation is used to artificially obtain 10% move in the price of a stock with a 10% weight in the NIFTY, this yields a 1% in the NIFTY. Cash settlements, which are universally used with index derivatives, also helps in terms of reducing the vulnerability to market manipulation, in so far as the 'short-squeeze' is not a problem. Thus, index derivatives are inherently less vulnerable to market manipulation. A good index is a sound trade between diversification and liquidity. In India the traditional index- the BSE – sensitive index was created by a committee of stockbrokers in 1986. It predates a modern understanding of issues in index construction and recognition of the pivotal role of the market index in modern finance. The flows of this index and the importance of the market index in modern finance motivated the development of the NSE-50 index in late 1995. The 50 stocks in the NIFTY are assuredly the most liquid stocks in India. The choice of Futures vs. Options is often debated. The difference between these instruments is smaller than, commonly imagined, for a futures position is identical to an appropriately chosen long call and short put position. Hence, futures position can always be created once options exist. Risk management of the futures clearing is more complex when options are in the picture. When portfolios contain options, the calculation of initial price requires greater skill and more powerful computers.

COMMODITY DERIVATIVES TRADING IN INDIA

In India, the futures market for commodities evolved by the setting up of the "Bombay Cotton Trade Association Ltd.", in 1875. A separate association by the name "Bombay Cotton Exchange Ltd" was established following widespread discontent amongst leading cotton mill owners and merchants over the functioning of the Bombay Cotton Trade Association. With the setting up of the 'Gujarati Vyapari Mandali" in 1900, the futures trading in oilseed began. Commodities like groundnut, castor seed and cotton etc began to be exchanged. Raw jute and jute goods began to be traded in Calcutta with the establishment of the "Calcutta Hessian Exchange Ltd." in 1919. The most notable centres for existence of futures market for wheat were the Chamber of Commerce at Hapur, which was established in 1913. Other markets were located at Amritsar, Moga, Ludhiana, Jalandhar, Fazilka, Dhuri, Barnala and Bhatinda in Punjab and Muzaffarnagar, Chandausi, Meerut, Saharanpur, Hathras, Gaziabad, Sikenderabad and Barielly in U.P.

The Bullion Futures market began in Bombay in 1990. After the economic reforms in 1991 and the trade liberalization, the Govt. of India appointed in June 1993 one more committee on Forward Markets under Chairmanship of Prof. K.N. Kabra. The Committee recommended that futures trading be introduced in basmati rice, cotton, raw jute and jute goods, groundnut, rapeseed/mustard seed, cottonseed, sesame seed, sunflower seed, safflower seed, copra and soybean, and oils and oilcakes of all of them, rice bran oil, castor oil and its oilcake, linseed, silver and onions. All over the world commodity trade forms the major backbone of the economy. In India, trading volumes in the commodity market have also seen a steady rise to Rs 5,71,000 crore in FY05 from Rs 1,29,000 crore in FY04. In the current fiscal year, trading volumes in the commodity market have already crossed Rs 3,50,000 crore in the first four months of trading. Some of the commodities traded in India include Agricultural Commodities like Rice Wheat, Soya, Groundnut, Tea, Coffee, Jute, Rubber, Spices, Cotton, Precious Metals like Gold & Silver, Base Metals like Iron Ore, Aluminium, Nickel, Lead, Zinc and Energy Commodities like crude oil, coal. Commodities form around 50% of the Indian GDP. Though there are no institutions or banks in commodity exchanges, as yet, the market for commodities is bigger than the market for securities. Hence, the Commodities market is estimated to be around Rs 44,00,000 Crores in future and the trading multiple is about 4 times the physical market, which is much higher at around 10 times of the other trading volumes.

GROWTH OF DERIVATIVES MARKET

The Derivatives Market Growth was about 30% in the first half of 2007 when it reached a size of $US 370 trillion. This growth was mainly due to the increase in the participation of the bankers, investors and different companies. The derivative market instruments are used by them to hedge risks as well as to satisfy their speculative needs. During 1995-2001, when derivatives were not introduced, turnover of cash market was Rs. 7853439.4. When Derivatives introduced, its total turnover till August 2009 was (INDEX FUTURES) Rs. 14553850, STOCK FUTURES Rs. 23036102, INDEX OPTIONS Rs. 9201708, and STOCK OPTIONS Rs. 1661010. So, stock futures are the highest traded derivatives till today. After the introduced Derivatives, total turnover of cash market is Rs. 7071414.5 till 2005-06, which is lesser than before introduction of derivatives. In comparison of cash market Rs. 15778844, derivatives Rs. 48452670 have 3 times more turnover. There is a constant growth in derivatives registered from Index futures to interest rate futures that was introduced recently (See Table I and Figure I).

The Derivative Market Growth for equity reached $114.1 trillion. The open interest in the futures and options market grew by 38 % while the interest rate futures grew by 42%. Hence the derivative market size for the futures and the options market was $49 trillion.

The contracts traded through Over-the-Counter market witnessed a 24 % increase in its face value and the over-the -counter derivative market size reached $70,000 billion. This shows that the face value of the derivative contracts has multiplied 30 times the size of the US economy. Notable increases were recorded for foreign exchange, interest rate, equity and commodity based derivative following an increase in the size of the Over-the Counter derivative market. The Derivative Market Growth does not necessitate an increase in the risk taken by the different investors. Even then, the overshoot in the face value of the derivative contracts shows that these derivative instruments played a pivotal role in the financial market of today.

The credit derivatives grew from $4.5 trillion to $0.7 trillion in 2001. This derivative market growth is attributed to the increase in the trading in the synthetic collateral Debt obligations and also to the electronic trading systems that have come into existence. The Bank of International Settlements measures the size and the growth of the derivative market. Hence, the derivatives growth in the over the counter derivative market witnessed a slump in the second half of 2006. Although the credit derivative market grew at a rapid pace, such growth was made offset by a slump somewhere else. The notional amount of the Credit Default Swap witnessed a growth of 42%. Credit derivatives grew by 54%. The single name contracts grew by 36%. The interest derivatives grew by 11%. The OTC foreign exchange derivatives slowed by 5%, the OTC equity derivatives slowed by 10%. Commodity derivatives also experienced crawling growth pattern (See Table II & Figure I for more details).

IMPACT OF DERIVATIVES ON FINANCIAL MARKETS

Derivatives are becoming increasingly popular, so the obvious question is whether, and how, they affect the stability of financial markets. Generally, derivatives improve the overall allocation of risks within financial systems. Hence, the derivatives are expected to show their impact on finncial markets in the following ways.

1. Derivatives make risk management more efficient and flexible especially at banks in managing their portfolios.
2. Derivatives allow a more efficient distribution of individual risks and a related reduction of aggregate risk within an economy.
3. Risk is attributable to poor contract wording (documentation risk) have already been largely overcome due to the development of standardized rules. A high market concentration currently hinders the economically optimal allocation of risks, although it does not directly endanger the stability of the financial markets. But the high degree of concentration is expected to last only temporarily.
4. There is no clear evidence so far that credit derivatives have systematically been wrongly priced. However, this cannot be ruled out entirely at present – Especially given the inexperience of some of the participants entering the market. Systematically wrong pricing would result primarily in a misallocation of

resources. Hence, the use of derivatives may change traditional incentive structures. This is mainly a theoretical phenomenon. In practice, various mechanisms help to deal with the incentive problems which could potentially increase risk. Risks associated with the use of credit derivatives will merit special attention until the market has matured. Banks and financial markets will then benefit additionally from their use and become more stable.

5. While derivatives are being used more and more in operative financial and risk management, their long-term implications for the credit and financial markets are only beginning to emerge. For the overall economy, the growing use of derivatives affects the stability of financial markets.

CONCLUSION

Indian market has equaled or exceeded many other regional markets in terms of the growth of derivatives markets and the variety of derivatives users, the. While the growth is being spearheaded mainly by retail investors, private sector institutions and large corporations, smaller companies and state-owned institutions are gradually getting into the act. Foreign brokers such as JP Morgan Chase are boosting their presence in India in reaction to the growth in derivatives.

There remain major areas of concern for Indian derivatives users. Large gaps exist in the range of derivatives products that are traded actively. In equity derivatives, NSE show that almost 90% of activity is due to stock futures or index futures, whereas trading in options is limited to a few stocks, partly because they are settled in cash and not the underlying stocks. Exchange-traded derivatives based on interest rates and currencies are virtually absent.

As Indian derivatives markets grow more sophisticated, greater level of investor awareness will become essential. NSE has programmes to inform and educate brokers, dealers, traders, and market personnel. In addition, institutions will need to devote more resources to develop the business processes and technology necessary for derivatives trading. In the present context, investing in stock markets is a major challenge ever for professionals. Derivatives acts as a major tool for reducing the risk involved in investing in stock markets for getting the best results out of it. Awareness about the various uses of derivatives can help investors to reduce risk and increase profits. Though the stock market is subjected to high risk, by using derivatives the loss can be minimized to a considerable extent. Hence, at the end it can be asserted that the Indian equity derivatives market has made its journey towards an "explosive growth" and is expected to continue the same tempo in the days to come.

TABLES

TABLE: I: PRODUCTS AVAILABLE FOR TRADING ON DERIVATIVES SEGMENT

Products on Derivative Segment	Date of Launch
S&P CNX Nifty Futures	June 12, 2000
S&P CNX Nifty Options	June 4, 2001
Single Stock Options	July 2, 2001
Single Stock Futures	November 9, 2001
Interest Rate Futures	June 24, 2003
CNX IT Futures & Options	August 29, 2003
Bank Nifty Futures & Options	June 13, 2005
CNX Nifty Junior Futures & Options	June 1, 2007
CNX 100 Futures & Options	June 1, 2007
Nifty Midcap 50 Futures & Options	October 5, 2007
Mini Nifty Futures & Options on S&P CNX Nifty	January 1, 2008
Long term Options on S&P CNX Nifty	March 3, 2008
S&P CNX Defty Futures and Options	December 10, 2008

(Source: NSE Website)

TABLE: II: BUSINESS GROWTH IN DERIVATIVES SEGMENT

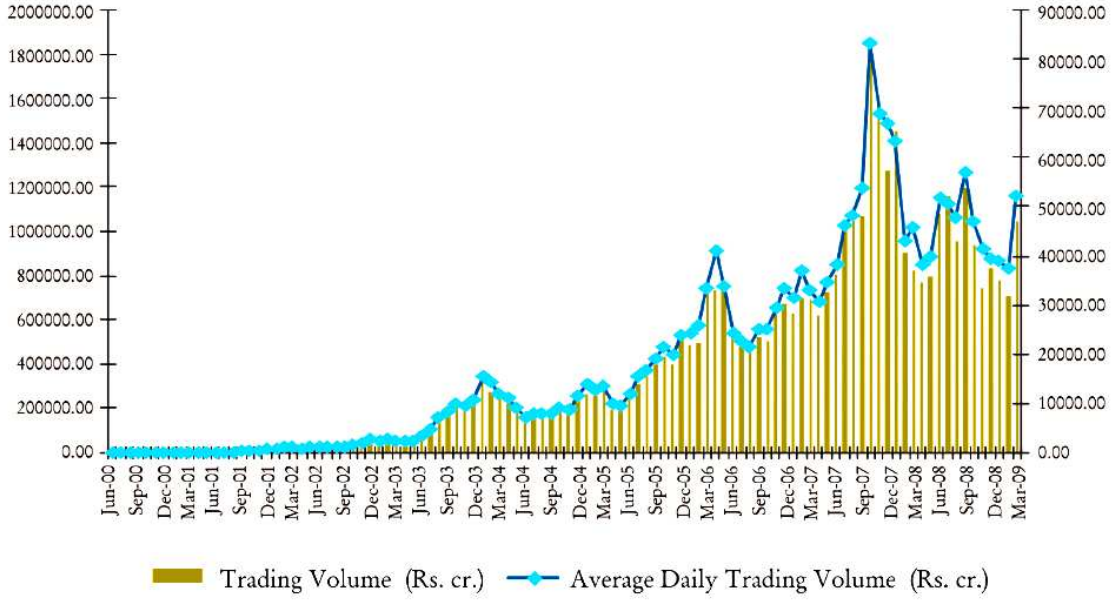
Month/ Year	Index Futures		Stock Futures		Index Options				Stock Options				Total			Average Daily Trading Value	
					Call		Put		Call		Put						
	No. of Contracts Traded	Trading Value (Rs. Cr.)	No. of Contracts Traded	Trading Value (Rs. Cr.)	No. of Contracts Traded	Notional Trading Value (Rs.Cr.)	No. of Contracts Traded	Notional Trading Value (Rs. Cr.)	No. of Contracts Traded	Notional Trading Value (Rs.Cr.)	No. of Contracts Traded	Notional Trading Value (Rs. Cr.)	No. of Contract Traded	Trading Value (Rs.Cr.)	Trading Value (US$ mn)	(Rs.Cr.)	(US$ mn)
Jun-00 to Mar-00	90,583	2,365	--	--	--	-	--	--	--	--	--	--	90,580	2,365	555	12	2.49
2001-02	1,025,588	21,480	1,957,856	51,516	113,974	2,466	61,926	1,300	768,159	18,783	269,370	6,383	4,196,873	131,927	20,887	413	8.46
2002-03	2,126,763	43,951	10,676,843	286,532	269,674	5,670	172,567	3,577	2,456,501	69,644	1,066,561	30,489	16,768,909	439,864	92,603	1,752	368.94
2003-04	17,191,668	554,462	32,368,842	1,305,949	1,043,894	31,801	688,520	21,322	4,248,149	168,174	1,334,922	49,038	56,886,776	2,130,649	491,046	8,388	1933.25
2004-05	21,635,449	772,174	47,043,066	1,484,067	1,870,647	69,373	1,422,911	52,581	3,946,979	132,066	1,098,133	36,792	77,017,185	2,547,053	582,183	10,067	2301.12
2005-06	58,537,886	1,513,791	79,586,852	2,791,721	6,413,467	168,632	6,521,649	169,837	4,165,996	143,752	1,074,780	36,518	157,619,271	4,824,250	1,081,428	19,220	4308.48
2006-07	81,487,424	2,539,575	104,955,401	3,830,972	12,632,349	398,219	12,525,089	393,693	4,394,292	161,902	889,018	31,909	216,883,573	7,356,271	1,687,605	29,543	6777.53
2007-08	156,598,557	3,820,667	203,587,952	7,548,563	26,667,882	668,816	28,698,156	693,295	8,002,713	308,443	1,457,918	50,693	425,013,200	13,090,478	3,275,076	52,153	13,048
2008-09	210,428,103	3,570,111	221,577,980	3,479,642	110,431,974	2,002,544	101,656,470	1,728,957	9,762,968	171,843	3,533,002	57,384	657,390,497	11,010,482	2,161,037	45,311	8,893

TABLE: III: SETTLEMENT STATISTICS IN DERIVATIVES SEGMENT

Month/Year	Index/Stock Futures		Index/Stock Options		Total	
	MTM Settlement (Rs. Cr)	Final Settlement (Rs. Cr)	Premium Settlement (Rs. Cr)	Exercise Settlement (Rs. Cr)	(Rs. Cr)	(US $. mn)
2000-01	84.08	1.93	--	--	86.01	18.44
2001-02	505.25	21.93	164.76	93.95	785.88	161.04
2002-03	1,737.90	45.76	331.21	195.88	2,310.76	486.47
2003-04	10,821.98	138.95	858.94	476.12	12,295.98	2833.83
2004-05	13,024.18	227.50	941.06	455.87	14,648.62	3348.25
2005-06	25,585.51	597.89	1,520.58	817.84	28,521.80	6393.59
2006-07	61,313.70	797.54	3,194.38	1,188.84	66,494.47	15254.52
2007-08	144,654.70	1,312.12	6,760.17	3,792.26	156,519.23	39227.88
2008-09	75,193.60	1,498.29	10,960.50	4,187.58	91,839.97	18025.51

(Source: NSE Website)

FIGURE: 1: BUSNESS GROWHT IN FUTURES & OPTIONS



(Source: NSE Website)

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