RESEARCH REVIEW JOURNALS
Volume-03
Issue-08
August-2018

ISSN: 2455-3085 (Online)
RESEARCH REVIEW International Journal of Multidisciplinary
www.rrjournals.com [UGC Listed Journal]

Study on the Paradigm Shift in Marketing Derivatives

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ARTICLE DETAILS

Article History
Published Online: 07 August 2018

Keywords
Derivatives, Paradigm, Speculators, Markets, Bond

ABSTRACT

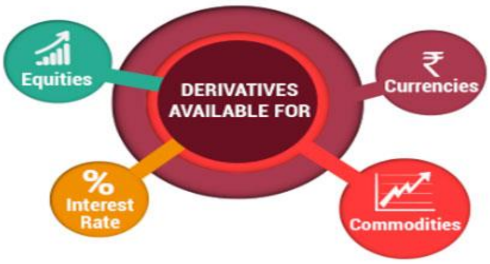
A derivative is a type of a financial instrument, whose value is derived from underlying assets. These underlying assets can be equities, interest rates, currencies and commodities. The general practice is to use derivatives as a risk management tool that allows an investor to transfer the risks attached with the underlying asset to the party who is willing to take it. There can be a number of risks such as market risks, credit risk and liquidity risk. While the term -paradigm‖ has been around for a long time, the wide acceptance and usage of the concept in the marketing literature is mainly fueled by Kuhn's (1962) seminal work The Structure of Scientific Revolutions (Deshpande 1983). The Kuhnian definitions of paradigm‖ generally refer to three postulates: paradigms as a complete view of reality or way of seeing, as relating to the social organization of science in terms of different schools of thought, and as relating to the specific use of instruments in the process of scientific puzzle solving‖ (Arndt 1985, p. 15). Most scholars, including authors of this study, use the term in the first sense. In the following discussion, the words paradigm and worldview‖ are used interchangeably.

The latest paradigm debate in marketing was ignited by dissatisfaction with the dominant goods-centered, transaction-based marketing model, and the concern that academic thinking lags behind real-world development (Lusch and Vargo 2006). Although scholars involved in this debate may take the risk of being academically imprudent and theoretically superficial, or even fragmentizing or oversimplifying marketing studies (Vargo and Lush 2004a), such efforts are considered healthy to the growth of a discipline (Brown, 2004). Granted, sometimes the term paradigm‖ has been misinterpreted and misused in these debates. However, to be true to what has been used, this study employs the term paradigm‖ when necessary, rather than nitpicking the semantic nuance.

1. Introduction

The general practice is to use derivatives as a risk management tool that allows an investor to transfer the risks attached with the underlying asset to the party who is willing to take it. There can be a number of risks such as market risks, credit risk and liquidity risk.

A derivative is a type of a financial instrument, whose value is derived from underlying assets. These underlying assets can be equities, interest rates, currencies and commodities. The general practice is to use derivatives as a risk management tool that allows an investor to transfer the risks attached with the underlying asset to the party who is willing to take it. There can be a number of risks such as market risks, credit risk and liquidity risk.



Who are the market players in Derivatives market?

On the basis of their trading rationale, participants in the Derivatives Market can be classified into 3categories. These are as follows:

Arbitrageurs:

In this category, the price difference between two different markets is exploited. A trader simultaneously buys an asset at a cheaper rate from one market and sells it at a higher price in another market, making it a low risk trade. However, it should be noted that such opportunities are very brief in the derivatives market. Since an arbitrageur rushes to grab this opportunity, it eventually narrows down the price gap.

For Example:

The cash market price of ABC Ltd is trading at Rs.100 per share, but is quoting at Rs. 102 in the future market. An arbitrageur would buy 100 shares at Rs. 100 in the cash market & simultaneously, sell 100 shares at Rs. 102 in Future markets, thereby making a profit of Rs. 2 per share.

Hedgers:

In simple terms, hedging means buying insurance in order to minimize the risk. An investor/trader who wants to protect himself from unfavourable price movements is called a Hedger. The main objective of a hedger is to limit his exposure risk and they do so by creating an exact opposite position in the derivatives market.

For Example:

An investor has a portfolio of Rs. 5,00,000 and he does not want to liquidate his portfolio ahead of key events, such as budget, policy announcements or even elections. Hence, to protect his portfolio from volatility, he can short index futures to make his portfolio beta neutral or he can buy Put option by paying a fixed cost known as premiums.

Speculator:

Speculators are risk takers, who are willing to take high risk in the anticipation of making higher gains in a short span of time. They tend to buy stocks with the expectation that the price will rise, and hope to eventually sell stocks at a higher level. While this category opens up the possibility of making large profits, it also exposes a trader to losing the principal amount.

For Example:

If a speculator feels that the price of ABC company is likely to fall in a few days due to some upcoming market developments, he would short sell the ABC company's share in a derivatives market. If the stock price falls as expected, then he would make a good profit depending on his holding. However, if stock prices go up against the expectation, then his loss would be equivalent.

What is The Use of Derivatives:

In the Indian markets, futures and options are standardized contracts, which can be freely traded on various market parameters. These could be employed to meet a variety of needs.

Earn Money on Shares that are Lying Idle:

So, you don't want to sell the shares that you bought for long term, but want to take advantage of price fluctuations in the short term. You can use derivative instruments to do so. Derivatives market allows you to conduct transactions without actually selling your shares – also called as physical settlement.

Benefit From Arbitrage:

When you buy low in one market and sell high in the other market, it called arbitrage trading. Simply put, you are taking advantage of differences in prices in the two markets.

Protect your Securities Against

The market derivative offers products that allow you to hedge yourself against a fall in the price that you possess. It also offers products that protect you from a rise in the price that you plan to purchase. This is called hedging.

Transfer Of Risk:

By far, the most important use of these derivatives is the transfer of market risk from risk-averse investors to those with an appetite for risk. Risk-averse investors use derivatives to enhance safety, while risk-loving investors like speculators conduct risky, contrarian trades to improve profits. This way, the risk is transferred. There are a wide variety of products available and strategies that can be constructed, which allow you to pass on your risk.

A Paradigm Shift In Markets

While the term -paradigm‖ has been around for a long time, the wide acceptance and usage of the concept in the marketing literature is mainly fueled by Kuhn's (1962) seminal work The Structure of Scientific Revolutions (Deshpande 1983). The Kuhnian definitions of paradigm‖ generally refer to three postulates: paradigms as a complete view of reality or way of seeing, as relating to the social organization of science in terms of different schools of thought, and as relating to the specific use of instruments in the process of scientific puzzle solving‖ (Arndt 1985, p. 15). Most scholars, including authors of this study, use the term in the first sense. In the following discussion, the words paradigm and worldview‖ are used interchangeably.

The latest paradigm debate in marketing was ignited by dissatisfaction with the dominant goods-centered, transaction-based marketing model, and the concern that academic thinking lags behind real-world development (Lusch and Vargo 2006). Although scholars involved in this debate may take the risk of being academically imprudent and theoretically superficial, or even fragmenting or oversimplifying marketing studies (Vargo and Lush 2004a), such efforts are considered healthy to the growth of a discipline (Brown, 2004). Granted, sometimes the term paradigm‖ has been misinterpreted and misused in these debates. However, to be true to what has been used, this study employs the term paradigm‖ when necessary, rather than nitpicking the semantic nuance.

Global bond yields have continued to rise markedly in recent months. After core fixed income markets had plumbed new historical depths this summer, overall yields had jumped sharply by the end of November - in fact by a magnitude similar to that of the taper tantrum of May-September 2013. But despite record high duration risk, there were few signs of stress in credit markets as spreads remained tight and volatility was contained.

Initially supported by positive macroeconomic news globally, the rise in yields sharply accelerated after the US presidential election. Bond market reactions around election day resembled those surrounding the first election of Ronald Reagan in 1980. Buoyant US equity markets also echoed that distant event, suggesting that markets expected a boom in the United States and higher corporate profits on an anticipated shift towards more expansionary fiscal policy, lower taxes and laxer regulation. Accordingly, market odds of tighter monetary policy increased in the United States and the dollar strengthened.

The global rise in yields and the strengthening of the dollar weighed on the assets of emerging market economies (EMEs). Until early November, EMEs were unscathed by developments in advanced economies. Then, investor sentiment shifted markedly. Bond outflows and exchange rate depreciation in the post-election week were even larger than at the height of the taper tantrum.

However, credit and equity market reactions in EMEs were more muted than in 2013, possibly reflecting a different economic and financial backdrop. EME funds had already experienced large outflows instead of steady inflows in recent years, defusing pressures on asset valuations. A prospective boom in the United States may also have been seen to benefit EMEs. Yet risks remain, in particular given a high degree of political uncertainty in several key jurisdictions. In addition, 10% of EMEs' dollar-denominated corporate debt is scheduled to mature in 2017, which could put further pressure on EME financial markets.

Short-term dollar funding rates rose significantly, mainly in response to changes in regulations pertaining to prime money market funds that took effect in October. A 70% decline in assets under management by these funds since October 2015, combined with a shift in their portfolios towards shorter maturities, led to a substantial widening of Libor-OIS spreads. But this did not cause any major disruption, in contrast to earlier periods of similar spread widening.

For a long time in the 20th century, the global economy was divided into the developed West and the Third World or the developing economies of Asia and Africa. Any discussion about the economy would invariably be around how many poor people are there in Asia and Africa compared to the affluence that the West enjoyed. However, things began to change starting from the late 1970s for Asia where China and then India liberalized their economies and opened them up for competition. Especially in the decade of the 1990s there was an accelerated thrust by China and to a lesser extent India to jump into the global economy and grow at phenomenal rates. This resulted in a massive uplifting of millions of people out of poverty and changed the perceptions of Westerners towards Asia. It was no longer the case that Asia was a supplicant and indeed, it had arrived to take its place at the high table of world nations.

This can be likened to a paradigm shift in global economics with hitherto laggards like China, South Korea, Thailand, Indonesia and India saw their growth rates soaring because of investments in infrastructure and education. The combination of economic capital and human capital along with a relatively young population as opposed to the aging economies of the West meant that these countries were on their way to achieving economic prowess. No wonder some of these countries were called Asian Tigers whereas the others were called the hottest emerging markets. The integration of the global economy and the globalization phenomenon added to the growth story of these countries and hence, they were accordingly represented in the global groupings like the G20.

The other aspect is that the ongoing global economic crisis has impacted the West more than it affected Asia which meant that there was a true Power shift happening from the West to the East. However, this does not mean that China and the other Asian countries should take it easy or rest on their laurels. As past experience shows, all it takes for relegation to backwardness is a few years of tepid growth which would put the brake son their success story. However, China seems to be following a good path of development whereas India seems to be lagging behind because of policy paralysis and the compulsions of democracy. Indeed, China's rise is also illustrative of another paradigm shift where it was previously thought that only democracies could sustain high levels of economic growth.

Finally, the emergence of Brazil, South Africa and a rejuvenated Russia has meant that the BRICS or the grouping of these countries with China and India is the next shift in balance of power in the global economy. It remains to be seen whether this grouping of nations is able to sustain their growth rates and challenge the west seriously in terms of power and prestige instead of being just countries that are still growing. The point here is that in a few years, it would be time for these emerging economies to go beyond the status quo and emerge as alternative economies to the West.

2. Review of Literature

Liu Niln (2017) investigated markets presently, the market includes a created administrative component and an advanced market framework its most noticeably awful time with the current worldwide money related emergency that started from the US sub-prime home loan market and spread over to the whole world as a disease. The capital market of India conveyed a lazy execution.

Anil Kumar (2017) found that large cap tend to lead small cap indices. The speed of adjustment of large capitalization stock was higher than small capitalization stock. advancement of unhindered commerce and evacuation of hindrances on the planet.

Lalit Gupta, (2017) found evidence of lagged price adjustment coefficients to new information in shorter return intervals for firms. As discussed earlier, a number of estimators have been developed his investigation entitled overreaction hypothesis using monthly data of Centre examination says that items a lagged partial adjustment process to intrinsic value with noise. The impact a noteworthy segment of the world economy and adjustment towards their intrinsic values thereby providing the direct measures of the degree of price over and under reactions can be seen as the biggest ‘nonfinancial’ market on the planet. At the point when the costs are low makers can’t support their future.

Sen Shankar Som and Ghosh Santanu Kumar (2016) contemplated the connection between securities exchange liquidity and instability and hazard. The investigation additionally manages time arrangement information by applying “Cochrane Orchutt two stage methodology”. An exertion has been made to build up a connection amongst liquidity and instability in their examination. It has been discovered that there is a measurably noteworthy negative connection amongst hazard and securities exchange liquidity. At long last it is reasoned that there is no noteworthy connection amongst liquidity and exchanging movement regarding turnover.

Routledge, Bryan and Zin, Stanley E (2014) analyzed of Carnegie Mellon University directed research on “Display Uncertainty and Liquidity”. Outrageous market results are frequently trailed by an absence of liquidity and an absence of exchange. This market crumple appears to be especially intense for business sectors where merchants depend vigorously on a particular exact model, for example, in subordinate markets.

Shenbagraman (2014) checked on the part of some non-value factors, for example, open premiums, exchanging volume and different elements, in the investment opportunity advertise for deciding the cost of fundamental offers in real money showcase. The investigation secured investment opportunity contracts for four months from Nov. 2002 to Feb. 2003 comprising 77 exchanging days. The examination presumed that net open enthusiasm of investment opportunity is one of the huge factors in deciding future spot cost of fundamental offer. The outcomes plainly demonstrated that open intrigue-based indicators are factually more noteworthy than volume-based indicators in Indian setting.

Aviva India (2010) a life insurance joint venture between Dabur (Manufacturer of traditional healthcare products) and Aviva plc of the U.K. has unveiled a research report on the savings habits of young parents. The study has found out that the rising cost of education was the biggest concern for parents and they did not want to take risks when investing for their children’s education. About 48 per cent of parents begin investing for the future education of their children even before the child turns three years of age.

Randall Shannon (2010) argue that existing explanations for the stock-market investor’s disposition to “ride losers too long” are unsatisfactory because they abstract from any role for information processing. They propose instead that the disposition effect is a special case of “waning vigilance” investors pay less attention to new information and analysis when making decisions about loss makers and are therefore slower to sell them when arguments in favor of holding cease to be valid.

Jedrzej Bialkowski (2010) examine individual investors trading behaviour by testing the presence of Monday and January anomalies on the polish futures market, where individuals are the predominant trader type. Both anomalies are well established in the literature, and they are at least partially attributed to individual investors trading activities. They conduct an intraday analysis of trading volume, open interest, returns, and return volatility on the futures market in Poland and find the contribution of individuals to market anomalies to be grossly overstated. Hence, individual investors trading on the polish futures market surpasses the prediction by the majority of investigations for mature stock markets.

Montek Singh Ahluwalia (2010) In the Book, ‘How India Earns, Spends and Saves’ launched by Deputy Chairman, Planning Commission, Government of India, which contains the findings of a survey conduct by NCAER and Max New York Life Assurance company, reveals that this phenomena is not just confined to poor or middleclass households, but is prevalent in rich households too. The survey reveals that most Indians prefer keeping 65 percent of their savings in liquid assets like bank or post office deposits and cash at home, while investing 23 percent in physical investments like real estate and gold and only 12 percent in financial instruments. The survey also revealed that Indian households have a strong saving habit – income level is an important factor in influencing the saving patterns of households: - variations in savings behaviour are equally decided by education level and occupation: - 81% of Indians save: - the average household savings are Rs.16,139: - the top income – quintile saves 44% of income: - graduate households save 30% of income: - non-graduate families an average of 18% - salaried earners save around 7% of income: - labourer households save about 4%. The surprising finding of the above survey is that even poor households save despite being in debt. The simultaneous exercise of unprofitable savings and high interest debt only serves to aggravate their financial problems.

Tabassum Sultana Syed (2010) discussed the characteristics of the Indian individual investors, also made an attempt to discover the relationship between a dependent variable i.e., Risk Tolerance level and independent variables such as Age, Gender of an individual investor on the basis of the survey. Indian investors are high income, well educated, salaried, and independent in making investment decisions and conservative investors. From the empirical study it was found that irrespective of gender, most of the investors (41%) are found to have low risk tolerance level and many others (34%) have high risk tolerance level rather than moderate risk tolerance level. It is also found that there is a strong negative correlation between Age and Risk tolerance level of the investor. Television is the media that largely influences the investor's decisions. Hence, this study can facilitate the investment product designers to design products which can cater to the investors who are low risk tolerant.

Dev Prasad (2009) adopted a modified questionnaire to analyze factors influencing Greek investor behaviour on the Athens Stock Exchange. The results indicated that individuals base their stock purchase decisions on economic criteria combined with other diverse variables. The author did not rely on a single integrated approach, but rather on many categories of factors. The result also revealed that there is a certain degree of correlation between the factors that behavioural finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behaviour of active investors in the Athens Stock Exchange influenced by the overall trends prevailing at the time of the survey in the Athens Stock Exchange.

Chien-Liang Chiu (2009) investigate the impact of the expected and unexpected trading behaviour of foreign investors on return volatilities during structural change periods and the jump intensity model pinpoints crucial events that have influenced the stock market. The empirical results find that there has been a stabilizing effect of foreign investment on Taiwan's stock market as restrictions on foreign trading have been graduate relaxed, as opposed to there being a complete relaxation of the restrictions imposed on Qualified Foreign Institutional Investors (QFIIs).

Nikiforow and Menkhoff (2009) provide evidence on the hypothesis that many behavioural finance patterns are so deeply rooted in human behaviour that they are difficult to overcome by learning. They tested this on a target group which has undoubtedly very strong incentives to learn efficient behaviour, i.e. fund managers. They split this group into endorsers and none endorsers of behavioural finance. Endorsers do, indeed, view markets differently as they regard stronger influences from behavioural biases. However, when it comes to the perception of one's own behaviour the endorsement of behavioural finance becomes almost meaningless, even though endorsers otherwise do adapt behaviour towards their conviction.

Saurab Singh (2009) stated that investment decisions made by investors are not solely dependent on price movement and stability of the markets. His study has resulted in listing factors as age, sex, education, family, and the past performance of a company's securities as variables or attributes, having significant influence and impact on the investor's investment decision making process.

Jasim Y.Al-Ajmi (2008) says that using a questionnaire method, his study presents new evidence on the determinants of risk tolerance of individual investors in Bahrain. On the basis of an analysis of close to 1,500 respondents, the findings indicate that as investors, men have high propensity towards risk tolerance than women. Investors with better level of education and Wealth are more likely to seek risk than less educated and less wealthy ones. The study also reports that investors risk tolerance declines when they have more financial commitments as well as when they are approaching their retirement age or are retired. That is, the effect of investor's age on risk tolerance is complex, in contrast to results reported elsewhere. Bahrainis are also found to be less risk tolerant than non-Bahrainis. One of the most important implications of the results is that the investment industry should not treat investors as one homogeneous group; therefore, men and women as investors should be treated as separate market niches, each with its own needs and requiring targeted marketing strategies. Investment companies and financial service marketers should design investment programs to respond to the particular needs of women investors, men investors, investors with particular education and age levels, wealthy investors, and expatriate investors.

Terry S. Walter (2008) investigates the trading behaviour and performance of online equity investors in comparison to non-online equity investors in Korea. While online trading has become more prevalent in financial markets, the role of online investors and their impact on prices has attracted little empirical scrutiny. They study the trading activity of foreign investors, local institutions and individual traders between 2001 and 2005 and compare their performance based on whether or not trading is performed online. Their main finding is that in aggregate, online investors perform poorly in comparison to non-online investors. Between investor-types, foreigners show the best returns, followed by local institutions. Individual investors provide liquidity to other investor-types, particularly when trading online. On balance, the main implication of their findings is that the disadvantage suffered by individual investors is mainly explained by their online trades.

Gupta et.al. (2008) stated that between shares and mutual funds, household investors prefer investing in shares compared to investing in mutual funds. Among various types of mutual fund schemes, systematic investment plans have become the most popular type. Typically, the household investors diversify their share portfolio to a moderate extent, i.e., among 3-10 companies. A practice among household investors is to diversify their investment in mutual funds also by dividing such investment among several mutual fund schemes. However, this is done to a rather limited extent. So far as middle and upper middle-class households are concerned, investing in the form of bank fixed deposits and governmental saving schemes are less preferred. The so-called "investing" in equity shares is predominantly oriented towards short-term speculation rather than long-term investment. As a result, our stock market is excessively dominated by speculative players. "Too much volatility" was regarded as the greatest worry by about 50% of the respondents, followed by “too much price manipulation” which was mentioned as the greatest worry by about 25% of respondents.

Tripathi Vanitha (2008) stated that the perceptions, preferences and various investment strategies in Indian stock market on the basis of a survey among 93 investment analysts, fund managers and active equity investors based at Delhi and Mumbai during May-October, 2007. Survey findings reveal that investors use both fundamental as well as technical analysis while investing in Indian stock market. Most of the respondents strongly agree that various company fundamentals (such as size, book to market equity, price earnings ratio, leverage etc.) significantly influence stock prices and hence addition of these factors in asset pricing model can better explain cross sectional variations in equity returns in India. Five widely used investment strategies in India equity market are size based strategies, momentum strategies, following FIIs investment behaviour, buying stocks on the basis of 30 days moving average and buying stocks on the basis of relative strength index. There has been substantial change in investment strategies used by active investors in Indian stock market over the past five years. In a nutshell there has been a shift from purely technical analysis-based strategies to the one which involves both fundamental and technical analysis. Moreover, the investment horizon of investors has also reduced due to higher volatility.

D Sean Pinder (2007) examine whether an asset’s qualification for discounted tax treatment is associated with positive abnormal trading volumes and negative abnormal returns, as would be predicted if investors modified their behaviour to reduce their tax liability. Their examination of 152 initial public offerings (IPOs) documents that there is an incremental increase in abnormal trading volume for those IPOs that have experienced a significant increase in price since listing over those IPOs that have increased only marginally. Although they provide only limited evidence to suggest that this increase in trading volume is accompanied by a decrease in returns, this is not unexpected in a market that has anticipated this type of behaviour by the relatively small proportion of individual investors able to benefit from the discounted tax treatment.

Hoffmann Arvid (2007) in his study on social Dimensions of Investor Behaviour stated that Traditional finance theories assume that investors only evaluate risk and expected returns when making investment decision. The respondents of Hoffmann’s online investment survey that besides financial needs, they also strive to satisfy more socially oriented needs through investing. These investors like to identify themselves with other investors and enjoy participating in investment-related conversations. Moreover, these investors consider investing to be a nice free time activity. Hoffmann also investigates the effects of striving to satisfy these different needs on the decision-making behaviour of these investors. It is found that investors for whom socially oriented needs are important also attribute more value to the opinion of others about their investment decisions and also request more information from these others before making their own decisions.

Zur Shapira (2007) compare the trading patterns of amateur and professional investors during the days following the weekend. The comparison is based on all the daily transactions of a large sample of both amateurs and professionally managed investors in a major brokerage house in Israel from 1994 to 1998. It is found that weekends influence both amateurs and professional investors; however, they affect them in opposite directions. Individuals increase both their buy and sell activities, and their propensity to sell rises more than their propensity to buy. Professionals on the other hand tend to perform fewer buys as well as sell trades after the weekend, but unlike individuals, the drop in their activity is almost the same for buy trades and for sell trades. The results agree with the previous hypotheses raised in the literature, which were not directly tested, about the effects of the weekend on the predisposition to trade of individuals and institutions in other markets. It is also found that returns on the Israeli stock market are correlated in general with the behavioural oat terns exhibited by the investors in the sample. In particular the returns on the days following the weekend are lower than those in other weekdays in a manner consistent with the behavioural patterns.

James J. Choi. et.al. (2007) says investors expect that investments in which they experienced past success will be successful in the future, whether or not such a belief is logically justified. They also stated that return chasing and variance avoidance diminish with age.

Jeffrey Wurgler (2007) in their research in behavioural corporate finance take two distinct approaches. The first emphasizes that investors are less than fully rational. It views managerial financing and investment decisions as rational responses to securities market mispricing. The second approach emphasizes that managers are less than fully rational. It studies the effect of nonstandard preferences and judgmental biases on managerial decisions. This survey reviews the theory, empirical challenges, and current evidence pertaining to each approach. Overall, the behavioural approaches help to explain a number of important financing and investment patterns. The survey closes with a list of open questions.

Mishra Bishnu Priya (2007) in her study entitled Investment Decision making process by employed women stated that desire for investment in gold is the same for all women irrespective of their qualification; employed women who have personal savings of more than Rs.1, 00,000 have a great desire for investment in real estate and educational qualification of employed women bears a relationship with investment in corporate bonds. Women who are self-employed or who have professional degrees show a great interest for investment in corporate bonds.

Yi-Tsung Lee, et.al. (2006) documented that individual investors lose by trading in the stock market. On the contrary, institutions enjoy an annual increase in profits. The study conducted in Taiwan using a complete history of trading of individual investors proved that the individual investors suffered a loss of 2.8% of the total personal income or 2.2% of Taiwan's G.D.P. this is mainly attributed to the investor bias.

Role of Derivatives in Causing the Global Financial Crisis

The previous articles in the module have discussed how the global financial crisis has been caused due to a combination of factors starting with the collapse of the housing market in the US and then due to the integration of the global economy rapidly spread to other parts of the world.

An aspect that was touched upon but not discussed in detail is the role of derivatives or the complex financial instruments used to hedge and guard against risk. In other words, derivatives are financial instruments that are built on top of other instruments like securities, commodities and just about everything else.

Derivatives as the name implies are derived from the value of the underlying asset and hence are used to hedge against a rise or fall in the value of the underlying asset. Indeed, the global market for derivatives covers just about every asset in the world and there are even derivatives for hedging against the weather.

Since derivatives essentially are traded on the basis of the value of the underlying asset, any disproportionate fall in the value of the underlying asset would cause a crash in the derivatives designed for that purpose. And this is what happened in the summer of 2007 when the housing market in the US started to go bust. Of course, the clever bankers had devised derivatives for such an eventuality as well and this was seen as an acceptable way of hedging risk. So, the obvious question is that if both sides of the risk have been hedged, then there should not have been a bust in the derivative market. The answer to this is that those investment banks and hedge funds that had found the right balance between the different hedging instruments survived the crash whereas the other banks like Lehmann that were highly leveraged because of their exposure to the subprime securities market collapsed.

Of course, the above explanation is a bit simplistic since the basic problem was that the securitization of the mortgages was built on top of the plain vanilla mortgages and this coupled with excessive risk taking by derivative trading resulted in the crash of 2008. The point here is that except for a few hedge fund traders and investment banks like JP Morgan, many banks simply were excessively leveraged which meant that the value of their liabilities far exceeded the value of the "real assets" on their books. So, when the assets went bad, the liabilities mounted and they were left with toxic derivatives that needed bailouts from the government and write-downs to solve the problem.

Finally, as we shall discuss in subsequent articles, the absence of regulation played a major part in causing the crisis as the derivatives were traded in the OTC or the Over the Counter segment meaning that they were not subject to regulation. This meant that banks could play hard and fast with the rules and devise their own rules for derivative trading outside of the purview of the regulators.

2.3 New Technologies and Startups Bringing Paradigm Shift in E-Commerce

India's e-commerce market that had a valuation of USD 13.6 billion in 2014; is all set to hit USD 76 Billion by the year 2021.

This forecast by e-Tailing India offers a good gist of how fast is the country's pace in the e-commerce segments. Apart from burgeoning internet users, emerging startups in this sector are the driving factor behind this exponential growth. The evolving eco-system of startups in the country is proffering a massive dynamic in the e-commerce industry. New business models, innovation in marketing and new tactics of distribution are mushrooming across the industry. E-commerce startups are achieving success in capturing a share of the market through new models of business, which are primarily directed towards solving challenges faced by customers as well as service providers. By offering amicable ways to customers, new startup businesses have introduced themselves as fundamental variables in the demand-supply equation of the e-commerce industry.

"New technologies have brought a paradigm shift in e-commerce. Analytics, social commerce, autonomous vehicles and other new technology platforms have become the riding engines for startup businesses," said Divyan Gupta of artanddecors.com.

Using these methodologies, new companies are able to personalise their features in accordance with customer requirements. Technology has been the most leveraged aspect in the emergent e-commerce market of India. New business models aided by technology features have introduced a set of fundamental changes in the way business occurs in the industry.

The technology eco-system of the country has also enabled the profusion of new ideas in the e-commerce industry. It is evident that, mass scale adoption of smart phones and internet connectivity is the basic reason of growing E-commerce industry of the country. The rate of penetration of internet in the country is among the fastest in the globe and smart phones contribute 35 percent of the total mobile market of the nation. Technology and e-commerce are in fact connected phenomenon and startups have leveraged this aspect the most.

New enterprises are introducing a fundamental change in the e-commerce landscape through intensive technologies.

"Use of Cloud services, transition of businesses to mobile application and digital advertisements in web domains comprise the primary traits of a changing e-commerce industry," said Gupta.

Leveraging these technologies, startup e-commerce companies are introducing innovative features in their business models.

Community building on social media, personalization of business on the level of mobile platforms and sharing economy are some of the pertinent aspects of the new face of e-commerce.

New enterprises moving into e-commerce segment has revolutionized the approach towards running a business. Startups are driven towards customer satisfaction and specialized services. With innovative and clutter breaking ideas, new business verticals are being created, which in return, facilitated a rise of new shopping experiences for customers. An array of new business models is being created in the Industry to gain customers' attention. Inventory models, social network, aggregator model, transaction brokers, click and collect services are heating up the market offering new competitive edges.

"The burgeoning number of market entities has made the segment both crowded and complicated. Along with new business models, new revenue models are also coming up in the business podium. On other hand, keeping at par with the growing competition, startups are pestering on to multiple revenue models. This has made the E-commerce market a cluttered one with a little organization and an almost zero structure," he underlined.

Many new revenue models such as, advertising, subscription model, transaction fee model, sales revenue model, affiliate models and other intuitive business models are coming up in the e-commerce market. Whatever be their thrust on the market dynamics, they are all directed towards a single point of conversion, which is, gaining a competitive edge over other players, ultimately offering larger customer satisfaction and amenities to end users.

"The role of startups is imperative in incurring another fundamental change in the industry, the transition from e-commerce to m-commerce. By the end of this year, mobile share of global e-commerce transactions will grow to 40 percent," predicted Gupta.

With new enterprises along with older players, focusing towards mobile engagement, more applications are coming into the market. Along with this, cross device marketing is emerging as the potential driver of the business.

Observing the traits of growth and profusion of E-commerce in the country, it is observable that the industry is still on a nascent stage in a backdrop of a growing economy. E-commerce has not proliferated across vast expanse of the country.

The industry is still far from reaching its optimal potential across Tier I, Tier II and Tier III cities and the vast gap between demand and supply is pertinent. Therefore, there are still large rooms for startups to grow and contribute to the market.

Leveraging technology, innovative business models and the rapidly growing customer base, existent startups can transform into established businesses with multiplied turnovers and more ventures can come up with more intensive business ideas.

Hence, emerging entities in the market will intensified the mosaic of the E-commerce Industry turning it to be more complicated with the unified and underlying idea of empowering customers.

2.4 Views of Brokers on Derivatives Trading in India: Issues and Challenges

Derivative exchange contributes to the development of the financial infrastructure of a country by providing the links among cash markets, hedgers and speculators. Attention to derivatives is justified on the enormous levels of global trading for both exchange - traded products and over the counter products. The derivatives are one of the categories of risk management tools. The primary function of derivatives market is to facilitate the transfer of risk among economic agent by offering mechanism for liquidity and price discovery (Tsetsekos and Varganis, 1997). The derivatives help to assist the business growth by disseminating effective price signals concerning exchange rates, indices and thereby render both cash and derivatives market more efficient. Expanded use of derivatives has prompted expression alarm from some legislators and regulators and the members of the press about the risks this new global activity poses to corporations, global capital markets and the overall economy (Culp and Mackay, 1997). The popular press has also dealt with derivatives market by reporting the risks caused by derivative trading and the regulation of derivatives markets (Herz (1993), Jordan (1995)).

As per International Accounting Standard (IAS) 39, a derivative is a financial instrument:

a) whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (Sometimes called the 'underlying');
b) that requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
c) that is settled at a future date.

For example, rice farmers may wish to sell their harvest at a price which they consider is 'safe' at a future date to eliminate the risk of a change in prices by that date. To hedge their risks, farmers can enter into a forward contract and any loss caused by fall in the cash price of rice will then be offset by profits on the forward contract.

There are four commonly traded derivative instruments:

1. Forward contract: It is an agreement to buy or sell an asset at a certain future time for certain price. These contracts are entered between two financial institutions or between financial institution and its corporate client. These are traded at OTC (Over the counter).
2. Future contract: A financial future contract is an agreement between two parties to buy or sell standard quantity of specific asset at a future date at a price agreed between the parties through an organized future exchange. The future contract are standardized in terms of : quantity of underlying, the date and month of delivery, the units of price quotation, and minimum change in price (tick- size), location of the settlement.
3. Option: The holder of option has the right, but not the obligation, to buy or sell the underlying asset at the fixed rate on date in the future. In the case of a European option, the owner has the right to require the sale to take place on (but not before) the maturity date; in the case of an American option, the owner can require the sale to take place at any time up to the maturity date.
4. Swap: A swap can be defined as financial transaction in which two counter parties agree to exchange the streams of payment or cash flows, over a time.

2.5 Scope in the Development of Derivative in India

The trading of derivative securities commenced in India after much debate over the introduction of derivatives to hedge the risks posed by the securities and a long waiting period. The National Stock Exchange (NSE) sought permission from the Securities and Exchange Board of India (SEBI) to trade stock index futures in December 1995, but it was only after five years that the first derivative security, i.e., stock index futures, was traded on the exchange. Stock index futures were introduced in June 2000, and thereafter, stock index options in June 2001. The options and futures on individual shares were introduced in July 2001 and November 2001, respectively. Later, more indices and shares were added in this segment. (Table I exhibits chronology of events relating to the development of derivative market in India.) As on December 31, 2009, there were 179 individual shares for which futures and options were traded. They are traded on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) wherein the latter contributes to more than 95 per cent of the total turnover in the derivative market in India (Srivastava et al., 2008).

Date	Event
14 Dec 1995	NSE wrote to SEBI for permission to trade index future
18 Nov 1996	SEBI formed L C Gupta Committee to develop the appropriate regulatory framework for derivative trading in India
7 Jul 1999	RBI permitted OTC Forward Rate Agreements (FRAs) and Interest Rate Swaps
24 May 2000	Singapore International Monetary Exchange (SIMEX) chose Nifty for trading futures and options on an Indian index
25 May 2000	SEBI permitted NSE and BSE to do index futures trading
9 Jun 2000	Trading of BSE Sensex futures commenced at BSE
12 Jun 2000	Trading of Nifty futures commenced at NSE
25 Sep 2000	Nifty futures trading commenced at Singapore Exchange (SGX)
4 Jun 2001	Index options introduced
2 Jul 2001	Stock options introduced
9 Nov 2001	Stock futures introduced
24 Jun 2003	Interest rate futures introduced

2.6 Risk of the Derivatives Market

A large number of researchers has analyzed accidents in derivative market, including Hong Kong (1987), Baring (1995), Shanghai (1995), Sum it omo (1996), Thai and Indonesian currencies (1997), Korea SK Securities (1998), and China Aviation Oil (2004), which all have revealed important lesson on how derivatives can be misused. There are some types of risk which users have to face while dealing with derivatives:

1. Credit risk: Credit risk is the risk that a loss will be incurred because the party fails to make the payment due. In the event of default, the loss is the cost of replacing the derivatives contract with a new party.
2. Market risk: It is the risk that the value of a contract, financial instrument, asset, or portfolio will change when market conditions changes. Interest rate risk is a common form of market risk.
3. Liquidity risk: It is the risk that a large transaction in a particular investment could have an adverse impact on its market price.
4. Operational risk: The risk that losses will be incurred as a result of inadequate computer system and internal controls, inadequate disaster or contingency planning, human error, or management failure.
5. Legal risk: Risk of loss because a contract cannot be enforced. Because of the relative newness of derivatives transaction, their treatment under existing laws and regulation has been ambiguous.

3. Conclusion

Market Derivatives have seen a metamorphic change and are offering a bundle of utilities to the stakeholders in hedging their performance risk, realizing speculative gains and in capitalizing on the arbitraging opportunities due to temporary disequilibrium or inefficiency of the markets. Participants in the markets are exposed to diverse risks and they seek effective and efficient risk management tools that help them to mitigate their probable performance risk of their portfolio and realize optimal rewards for their investments. Market regulatory authorities are striving hard for providing innovative risk management tools to manage the risk in the hands of participants. Market Derivative Instruments have been one of such innovations. Financial Derivatives, though considered as Risk Hedging Instruments, are preferred less by larger sections of retail investors in India. This is due to the complex nature of the Derivative Instruments and volatile market conditions making the investors highly resistive towards adoption of innovative instruments such as Derivatives. These instruments are getting more confined to large scale investors, institutional investors, and HNIs who are found investing in Equity or Index Derivative platforms. It is also observed and opined by the market intermediaries and investor participants that the cash markets are greatly affected by the derivative segments as they are driving away major segment of the cash markets i.e., speculators by offering them better rewards with lesser capital participation. Index Derivatives especially the Index Futures are doing well globally, and Equity Derivatives (F&O) are also providing the investors better hedging opportunities and performance efficiency of their investment portfolio. Global market crisis influenced by mortgage crisis, failure of CDS (Credit Default Swaps) in US and European markets are making rest of the economies skeptical towards these instruments and leaving the future for growth under shadow. Anyhow, the high degree of market risk and uncertainty in the market are forcing the investors to look for better hedging opportunities. Derivative Instruments are providing for opportunities in this regard. However, lack of knowledge about the Derivative Products is leading to their underperformance.

The main components of capital market are securities market and financial intermediaries. A formal capital market was present in our country from early 1900's but remained very inactive at that time. The inactiveness of capital market has continued even after independence. The growth of capital market has acquired momentum only from mid-eighties. Till then debt instruments were more popular and the investors have not shown much interest in direct investment. Besides the Government's policy towards promotion of capital market was also not much encouraging. Concentration was given to the growth of agricultural sector. The plan for industry-centered growth had been mainly encouraged only for eighties. During mid-eighties the foreign collaboration policy of the Government has inspired the industries towards the channel of growth and development. It has been further strengthened by the liberation and privatization measures instituted by the Government as a part of new economic policy. This coupled with the excellent performance of the private sector has made the capital market more active. The radical changes in the policies of the Government and the development of industrial sector have attracted many investors into the capital market. Investor satisfaction, motivation and the promotion of investment cult among the investors are given more emphasis. SEBI guidelines of investor protection, foreign equity participation and the permission of global issues and the like have given further contributed towards the growth of our capital market. The growth of Indian economy, at present is virtually depends upon the growth of the capital market.

The Indian capital market has made substantial progress during the post-independence period. However, the amount of capital raised in the form of equity and preference shares and debentures by the corporate sector has not been large over a number of years. There has been a raising trend since 1975 but the increase was not all that large. The Indian capital market has grown so sharply in the 1980's that the decade itself has been christened as a decade of the capital market. More particularly, during the latter part of the eighties, the primary and the secondary markets have grown by leaps and bounds. It is evident from the fact that against an annual average amount of just Rs.90 crores raised from the new issues market in the 1970's about Rs.27, 344 crores are being raised during 2003 - 2004. The total capital issues of both the private and public sectors during the years ended 31st March 2005, 2006 and 2007 were Rs.9,683 crores Rs.13,450 crores and Rs.27,344 crores respectively. The number of public issues, have also increased year by year and the total number of public issues of securities for the year ending as on 31st March 2007 aggregate to 335,572 and 1,036 respectively. All these issues were subscribed to by the individual and institutional investors, non-resident Indians, foreign institutional investors and mutual funds, and the public participation was overwhelming and the issues were always oversubscribed a number of times. In tune with the growth in the new issues market during the eighties, the secondary market also expanded fast during this period. The number of stock exchanges has increased from 8 in 1980 to total of 21 in 2006. The membership of the stock exchanges has also increased substantially to around 4,000 in 2006 from about 1,200 two decades ago. The listed companies of all stock exchanges stood to above 12,500 in 2006, which were only 2,733 in 1980. The market capitalization has also shown a substantial increase in the eighties. The volume of daily turnover of trade has also increased more than ten-fold over the decade to Rs.250 crores in 2006. On Bombay stock Exchange, the number of dealings per hour put through was as high as 40,000. The paid-up share capital of listed companies in 1980 was Rs.3, 143 crores, while in 2006; the figure was more than Rs.12, 000 crores. The market value of the capital of these limited companies stood at around Rs.3 lack crores in 2006. Besides, the number of joint stock companies at work has increased significantly to 2, 75,664 with the paid-up capital of Rs.1,90,962.2 crores as on 31st March 2006, which was only 56,493 with the paid-up capital of Rs.14,607 crores up to 31st March 1980. Investor population has increased from 2 million in 1980's and reached beyond the limit and the number of stock exchanges is 21. In addition to these stock exchanges the NSEIL and OTCEI has been set-up for solving the problem arising in out of the structural weaknesses of our market and provide more transparency in deals and a nationwide network of trade. The stock exchanges of India like Bombay Stock Exchange, National Stock Exchange, Regional Stock Exchanges, Ahmadabad Stock Exchange, Bangalore Stock Exchange, Bhubaneshwar Stock Exchange, Calcutta Stock Exchange, Cochin Stock Exchange, Coimbatore Stock Exchange, Delhi Stock Exchange, Guwahati Stock Exchange, Hyderabad Stock Exchange, Jaipur Stock Exchange, Ludhiana Stock Exchange, Madhya Pradesh Stock Exchange, Madras Stock Exchange, Magadh Stock Exchange, Mangalore Stock Exchange, Meerut Stock Exchange, OTC Exchange Of India, Pune Stock Exchange, Saurashtra Kutoh Stock Exchange, Uttar Pradesh Stock Exchange and Vadodara Stock Exchange.

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