

## Development in Financial Market: An Overview of Pioneering Financial Products

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### Abstract

Advancements in financial market are the concept prevailing from 1960's and now it became a strategic tool for Investment houses, corporate world and investors to achieve their investment objectives. Earlier it was admired only in developed economies but now it gets famed in developing economies. Indian Companies have been using a wide variety of pioneering financial instruments to elevate their capital for financing needs at the very same time it also provide array of advanced financial products to investors to customize their investments needs.

Advancements in financial markets always have been with essentials like product origination and process novelty which may be represented by derivatives contracts, new corporate securities and other innovative products akin to Zero coupon bonds, warrants, Stock invest, Bond with floating interest rate, Deep discount bonds, option bonds, index funds, options etc.

To meet out the expectations of all investors and understanding the need of hour in global financial market context there is a need of the development of advanced financial products and markets which can serve the purpose in a better way.

The last three decades have witnessed hastening in the process of financial revolution. Financial innovation enhances the operational efficiency of the financial system by reducing the costs and risk of transactions in financial markets.

In this paper researchers focused on Contemporary Advancements in the financial instruments and want to emphasize on its various aspects to analyses the current and future benefits to be derived out of it to make financial markets highly striking for investments.

### Key Words

Financial Market, Capital Market, Financial advancements, Securities Market, Derivatives, Financing, new corporate securities

### Introduction

Advancements are the application of better solutions that meet new requirements, in-articulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society. The term innovation can be defined as something original and, as a consequence, new, that "breaks into" the market or society. A definition consistent with these aspects would be the following: "An innovation is something original, new, and important in whatever field that breaks in to a market or society" It generally refers to renewing, changing or creating more effective processes, products or ways of doing things. While something novel is often described as an innovation, in economics, management science, and other fields of practice and analysis it is generally considered a process that brings together various novel ideas in a way that they have an impact on society. Innovation differs from invention in that innovation refers to the use of a better and, as a result, novel idea or method, whereas invention refers more directly to the creation of the idea or method itself.

Innovation differs from improvement in that innovation refers to the notion of doing something different rather than doing the same thing better.

It is the application of new ideas to the products, processes, or other aspects of the activities of a firm that lead to increased “value.” This “value” is defined in a broad way to include higher value added for the firm and also benefits to consumers or other firms. Innovation involves deliberate application of information, imagination and initiative in deriving greater or different values from resources, and includes all processes by which new ideas are generated and converted into useful products.

### Diffusion of Innovation

Diffusion of innovation research was first started in 1903 by seminal researcher Gabriel Tarde, who first plotted the S-shaped diffusion curve. **Tarde** (1903) defined the innovation-decision process as a series of steps that includes

1. First knowledge
2. Forming an attitude
3. A decision to adopt or reject
4. Implementation and use
5. Confirmation of the decision



### Financial Advancements and Innovation

One of the bedrocks of our financial system is financial innovation and financial innovation is the life blood of efficient and responsive capital markets. Financial innovation—the creation of new securities, markets and institutions—can improve financial services and thereby accelerate economic growth. The last 25 years have witnessed acceleration in the process of financial innovation. Financial innovation enhances the allocation efficiency of the financial intermediation process and improves the operational efficiency of the financial system by reducing the costs and/or risk of transactions in the primary and secondary markets in which financial instruments are traded. Financial innovation is necessary to achieve a high and stable rate of growth through financial sector development in Emerging Market Economies (EMEs).

Financial innovation has been a continuous and integral part of growth of the capital markets. Greater freedom and flexibility have enabled companies to reinvent and innovate financial instruments. Many factors such as increased interest rate, volatility, frequency of tax and regulatory changes etc. have stimulated the process of financial innovation. The deregulation of financial service industry and increased competition within investment banking also led to increased activities to design new products, develop better processes, and implement more effective solution for increasingly complex financial problems. Financial instrument is a combination of characteristics such as promised yield liquidity, maturity, security and risk. The process of financial innovation involves creating new instruments and technique by unpackaging and rebinding the same characteristics in different fashion to suit the constantly

changing needs of the issuers and the investors. At times it leads to introduction of revolutionary new products such as swap, mortgage, and zero coupon bonds to finance leveraged buyouts. Sometimes it involves the piecing together of existing products and process to fit in a particular set of circumstances. Many companies consider the types of securities (debt and equity), and a handful of simple financial institutions (banks or exchanges). However, there is a range of financial products, types of financial institutions and a variety of processes that these institutions employ to do business.

Financial innovation is the act of creating and then popularizing new financial instruments, as well as new financial technologies, institutions and markets. The innovations are sometimes divided into product or process variants, with product innovations exemplified by new derivative contracts, new corporate securities or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions or pricing transactions. In practice, even this innocuous differentiation is not clear, as process and product innovations are often linked. Innovation includes the acts of invention and diffusion, although in point of fact these two are related as most financial innovations are evolutionary adaptations of prior product. Financial innovation can be defined as the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. It includes institutional, product and process innovation. Product innovation relates to new products such as derivatives, securitized assets, and foreign currency mortgages and so on. Process innovations relate to new ways of doing financial business including online banking, phone banking and new ways of implementing information technology and so on.

There are a wide range of different types of financial innovations. Recent innovations include: hedge funds, private equity, weather derivatives, retail structured products, exchange traded funds, multi-family offices and Islamic bonds (Sukuk). The shadow banking system has spawned an array of financial innovations including various mortgage-backed securities products and collateralized debt obligations (CDOs).

Recognizing the way in which innovation supports economic growth, many governments around the world encourage investment in research and development by allowing companies to claim tax credits for the amount spent on it, particularly for technology-driven innovations.

The power of innovation derives from its combination with investment and competition. Innovation initially benefits the innovator and investment magnifies the returns. Competition then helps to distribute the benefits of innovation more widely across society, driving down prices and making new products and services widely available. Some innovations prove to be what are called general purpose technologies, upon which a myriad of further innovations can be built. Electricity generation is a 19th-century example of such an innovative wellspring, transistors and microchips are 20th-century examples and the Internet is a modern one. Innovation always changes the status quo, but some innovations cause greater disruption than others. In the most severe cases, radical innovations fundamentally change society and spawn further generations of innovation.

Today, more than ever before, innovation, enterprise and intellectual assets drive economic growth and increase standards of living. Innovation is instrumental in creating new jobs, providing higher incomes, offering investment opportunities, solving social problems, curing disease, safeguarding the environment and protecting our security. To help achieve these objectives, governments must create appropriate incentives for continued growth in innovation and technology development and embrace sound policies for assuring broad social diffusion and access to key scientific and technological advances that enable us, as Newton first observed, “to stand on the shoulders of geniuses” “The four key areas where ‘positive innovation’ can provide opportunity are: financing and growing the private economy; promoting inclusiveness; increasing efficiency, access and the customer experience; and

rebalancing risk across sectors of the economy. Nevertheless, innovation, almost by definition, introduces uncertainty which gives rise to unintentional negative outcomes. Given the financial sector's relationship to the rest of the economy, it is vital that the likelihood of negative outcomes with widespread consequences is reduced. Yet, the dynamics of the sector and of innovations themselves make it impossible to reliably predict negative outcomes for individual innovations. However, enhancements to existing governance procedures, by adapting existing risk management mechanisms and other processes, can increase sensitivity to the specific contribution of innovation to uncertainty and risk. The report concludes with recommendations to financial institutions and regulators in order to minimize their exposure to uncertainty and risk.

While innovation can expedite development of markets to an extent, a basic framework is absolutely necessary for innovation to have positive impact

### **Functions of Financial Innovation**

- To provide ways of clearing and settling payments to facilitate trade (**Credit and debit cards, PayPal, stock exchanges**)
- To provide mechanisms for the pooling of resources and for the subdividing of shares in various enterprises (**Mutual funds, securitization**)
- To provide ways to transfer economic resources through time, across borders and among industries (**Savings accounts, loans**)
- To provide ways of managing risk (**Insurance, many derivatives**)
- To provide price information to help coordinate decentralized decision-making in various sectors of the economy (**Contracting by venture capital firms**)
- To provide ways of dealing with the incentive problem created when one party to a transaction has information that the other party does not or when one party acts as agent for another (**Price signals, extracting default probabilities from credit default swaps (CDS)**)

### **Literature Review**

**Franklin Allen, (2011)**, advocated that, there is a fair amount of evidence that financial innovations are sometimes undertaken to create complexity and exploit the purchaser. Thus financial innovation does have a dark side. As far as the financial crisis that started in 2007 is concerned, securitization and subprime mortgages may have exacerbated the problem. However, financial crises have occurred in a very wide range of circumstances, where these and other innovations were not important. There is evidence that in the long run financial liberalization has been more of a problem than financial innovation. There are also many financial innovations that have had a significant positive effect. These include venture capital and leveraged buyout funds to finance businesses. In addition, financial innovation has allowed many improvements in the environment and in global health. On balance it seems likely its effects have been positive rather than negative.

**Suresh, Anli (July 2010)**, stated that India, like most other emerging market economies, has so far, not been seriously affected by the recent financial turmoil in developed economies .Because, India adapted financial innovations along with strong regulations hence, capital inflows in the past few years increased sharply and have been well above the current account deficit, which has largely remained modest.

**Anton Sorin Gabriel** through his research highlighted the various financial innovations and particular emphasis was laid on the extent to which financial innovation is spreading financial

risks more widely. The past decades have witnessed a large number of important financial innovations, such as derivatives, risk transfer products, exchange traded funds, and different forms of tax-deductible equity. He stated that the process of "financial innovation" includes changes in financial instruments, institutions, practices and markets. For this reason, financial innovation has an important influence on the risk management, on financial markets and on the world economy. How financial innovation occurs and what are the implications of it on the derivatives markets for long-term were analyzed.

**K.P Krishnan (April 2011)** stated that it was well recognized in economic literature that efficient and developed financial markets can lead to increased economic growth by improving the efficiency of allocation and utilization of savings in the economy. Better functioning financial systems ease the external financing constraints that impede firm and industrial expansion. There is a growing body of empirical analyses, including firm-level studies, industry-level studies, individual country studies, and cross-country comparisons, that prove this strong, positive link between the functioning of the financial system and long-run economic growth. Specifically, financial systems facilitate the trading, hedging, diversifying, and pooling of risk. In addition, they better allocate resources, monitor managers and exert corporate control, mobilize savings, and facilitate the exchange of goods and services. Thus well-functioning financial markets are critical, especially for emerging market economies (EMEs).

India is one of the five countries classified as big emerging market economies by the World Bank. This list also includes People's Republic of China (PRC), Indonesia, Brazil, and Russia. These countries have made the critical transition from a developing country to an emerging market. The World Bank has predicted that these five biggest emerging markets' share of world output will have more than doubled from 7.8% in 1992 to 16.1% by 2020.

With the review of the already researched work it can be concluded that although financial innovations have a darker side yet the positive side overpowers it. The research has been carried out by various researchers and through this research; the researcher has tried adding to their research by way of exploring the area in depth. The existing literature covers certain significant areas relating to financial innovations yet there are certain unanswered questions such as:

- To study the nature, growth and extend of advancements and innovations in financial markets.
- To examine the impact of innovations in the Indian financial markets.
- To analyze the various innovative products in the financial market.
- To examine the pros and cons of financial innovation and advancements.

In view of the above stated partially explored questions by certain scattered attempts made by some of the studies there arises a need to undertake a study about the **"Contemporary Advancements in Financial Market: An Overview"**.

### **Need For the Study**

- Financial innovations occur because market participants are constantly searching for new ways to make greater profits. Creative ideas and financial innovations expand access to capital stimulate economic development and thus an in-depth study of financial innovations is required.
- Financial innovation in India is key to making growth inclusive hence it is essential to study the innovations taking place in the capital market.
- The right kind of innovation obviously would help the financial sector fulfill its core functions; and if the financial sector fulfilled those functions better, and at lower cost, almost

surely it would contribute to growth and societal well-being. But, for the most part, that is not the kind of innovation we have had.

Financial markets are an important and sufficient conduit to channel and mobilize funds to enterprises, both private and government thus by the study of financial innovations in capital market we'll come to know about various products through which this channelization would take place.

### **Objectives of the study:**

- To study the nature, growth and extend of innovations and advancements in financial markets.
- To examine the impact of advancements in the Indian financial markets.
- To analyze the various innovative products in the financial market.
- To examine the pros and cons of financial innovations.

### **Innovative Financial Instruments**

- **Medium of Exchange:** (9000BC onwards) It is an intermediary Used to prevent the inconvenience related to barter system. It is generally accepted as a standard of value and measure of wealth.
- **Shell Money: (5000BC)** - It was a medium of exchange that was sometime once used in the world. The money consisted of either the sea shells or their pieces. Mostly worked into beads or used as it is.
- **Insurance:** It is the equitable transfer of the risk of a loss from one entity to another in exchange for a payment. It is a form of risk management primarily used to receive financial reimbursement against losses.
- **Annuities:** It can be said to be a stream of fixed payments over a specific period of time. *Annuities* are primarily used as a means of securing a steady cash flow for an individual during their retirement years.
- **Debentures:** Includes stocks, bonds etc which are issued by the company as a certificate of indebtedness. For the issue of debentures, date of the repayment of principle and interest is decided. It is created on the charge of undertaking of assets of the company. If the company is not able to make the payment on the time, so the investors can redeem the debentures by undertaking the assets or from the sale of assets.
- **Bills of Exchange:** A bill of exchange is a financial instrument to settle dues between parties and is capable of being transferred just by passing on its possession with or without endorsement, as the case may be depending upon its original character. In India, it is governed mainly under the provisions of Negotiable Instruments Act.
- **Representative Money:** Any type of money that has face value greater than its value as material substance. Something that is not in the physical form of currency, but represents the intent to pay money. A paper check from a banking institution is an example of representative money. The check is not a physical piece of money, but it implies the intent to repay
- **Bonds:** A bond is an instrument of indebtedness of the bond issuer to the holders. A debt investment in which an investor loans money to an entity (corporate or governmental) that borrows the funds for a defined period of time at a fixed interest rate. Bonds are used by companies, municipalities, states
- **Reinsurance:** The contract made between an insurance company and a third party to protect the insurance company from losses. The contract provides for the third party to pay for

the loss sustained by the insurance company when the company makes a payment on the original contract.

➤ **Insurance Brokerage:** - An Insurance Broker is a specialist in insurance and risk management. Brokers act on behalf of their clients and provides advice in the interests of their clients. Sometimes an insurance broker will act as agent of an Insurer

➤ **Options:** It is a financial derivative that represents a contract sold by one party (option writer) to another party (option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date). A call option gives the buyer, the right to buy the asset at a given price. This 'given price' is called 'strike price'. It should be noted that while the holder of the call option has a right to demand sale of asset from the seller, the seller has only the obligation and not the right. For e.g.: if the buyer wants to buy the asset, the seller has to sell it. He does not have a right. Similarly a 'put' option gives the buyer a right to sell the asset at the 'strike price' to the buyer. Here the buyer has the right to sell and the seller has the obligation to buy. So in any options contract, the right to exercise the option is vested with the buyer of the contract.

➤ **Futures:** It is a financial contract obligating the buyer to purchase an asset, (or the seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price. Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange. Some futures contracts may call for physical delivery of the asset, while others are settled in cash. The futures markets are characterized by the ability to use very high leverage relative to stock markets. Some of the most popular assets on which futures contracts are available are equity stocks, indices, commodities and currency.

➤ **Mutual Funds:** An open-ended fund operated by an investment company which raises money from shareholders and invests in a group of assets, in accordance with a stated set of objectives.

➤ **Venture Capital:** - Money provided by investors to startup firms and small businesses with perceived long-term growth potential. This is a very important source of funding for startups that do not have access to capital markets. It typically entails high risk for the investor, but it has the potential for above-average returns.

➤ **Foreign Currency Convertible Bonds (FCCBS):** A convertible bond is a mix between a debt and equity instrument. It is a bond having regular coupon and principal payments, but these bonds also give the bondholder the option to convert the bond into stock. FCCB is issued in a currency different than the issuer's domestic currency. The investors receive the safety of guaranteed payments on the bond and are also able to take advantage of any large price appreciation in the company's stock. Due to the equity side of the bond, which adds value, the coupon payments on the bond are lower for the company, thereby reducing its debt-financing costs.

➤ **Derivatives:** A derivative is a financial instrument whose characteristics and value depend upon the characteristics and value of some underlying asset typically commodity, bond, equity, currency, index, event etc. Advanced investors sometimes purchase or sell derivatives to manage the risk associated with the underlying security, to protect against fluctuations in value, or to profit from periods of inactivity or decline. Derivatives are often leveraged, such that a small movement in the underlying value can cause a large difference in the value of the derivative.

- **Hedge Fund:** A hedge fund is an investment fund open to a limited range of investors that undertakes a wider range of investment and trading activities in both domestic and international markets, and that, in general, pays a performance fee to its investment manager. Every hedge fund has its own investment strategy that determines the type of investments and the methods of investment it undertakes. Hedge funds, as a class, invest in a broad range of investments including shares, debt and commodities.
- **GDR/ADR:** A negotiable certificate held in the bank of one country (depository) representing a specific number of shares of a stock traded on an exchange of another country. GDR facilitate trade of shares, and are commonly used to invest in companies from developing or emerging markets. GDR prices are often close to values of related shares, but they are traded and settled independently of the underlying share. Listing on a foreign stock exchange requires compliance with the policies of those stock exchanges. Many times, the policies of the foreign exchanges are much more stringent than the policies of domestic stock exchange. However a company may get listed on these stock exchanges indirectly – using ADRs and GDRs.
- **Participatory Notes:** Also referred to as "P-Notes" Financial instruments used by investors or hedge funds that are not registered with the Securities and Exchange Board of India to invest in Indian securities. Indian-based brokerages buy India-based securities and then issue participatory notes to foreign investors. Any dividends or capital gains collected from the underlying securities go back to the investors. These are issued by FIIs to entities that want to invest in the Indian stock market but do not want to register themselves with the SEBI. RBI, which had sought a ban on PNs, believes that it is tough to establish the beneficial ownership or the identity of ultimate investors
- **Exchange Traded Funds:** An exchange-traded fund (or ETF) is an investment vehicle traded on stock exchanges, much like stocks. An ETF holds assets such as stocks or bonds and trades at approximately the same price as the net asset value of its underlying assets over the course of the trading day. Most ETFs track an index, such as the S&P 500 or MSCI EAFE. ETFs may be attractive as investments because of their low costs, tax efficiency, and stock-like features, and single security can track the performance of a growing number of different index funds (currently the NSE Nifty)
- **Weather Derivatives:** Recently, firms have used weather derivatives, relatively new type of derivatives that allow them to purchase protection against unexpected weather conditions. More and more companies' revenues and earnings are adversely affected by the weather. The U.S. Department of Energy has estimated that nearly 20% of the US economy is directly affected by the weather, and that the profitability and revenues of almost every industry depend to a great extent on the vagaries of the temperature. Weather conditions directly affect agricultural outputs, the demand for energy products, and indirectly affect retail businesses, entertainment, construction, travel and others.
- **Disaster Bonds:** Also known as Catastrophe or CAT Bonds, Disaster Bond is a high-yield debt instrument that is usually insurance linked and meant to raise money in case of a catastrophe. It has a special condition that states that if the issuer (insurance or Reinsurance Company) suffers a loss from a particular pre-defined catastrophe, then the issuer's obligation to pay interest and/or repay the principal is either deferred or completely forgiven.
- **Secured Premium Notes (SPN):** It is a secured debenture redeemable at premium issued along with a detachable warrant, redeemable after a notice period, say four to seven years. The warrants attached to SPN gives the holder the right to apply and get allotted equity shares; provided the SPN is fully paid. There is a lock-in period for SPN during which no interest will



be paid for an invested amount. The SPN holder has an option to sell back the SPN to the company at par value after the lock in period. If the holder exercises this option, no interest/premium will be paid on redemption. In case the SPN holder holds it further, the holder will be repaid the principal amount along with the additional amount of interest/ premium on redemption in instalments as decided by the company. The conversion of detachable warrants into equity shares will have to be done within the time limit notified by the company.

➤ **Deep Discount Bonds:** It is a bond that sells at a significant discount from par value and has no coupon rate or lower coupon rate than the prevailing rates of fixed-income securities with a similar risk profile. They are designed to meet the long term funds requirements of the issuer and investors who are not looking for immediate return and can be sold with a long maturity of 25-30 years at a deep discount on the face value of debentures.

➤ **Gold ETF:** Gold Exchange Traded Fund (ETF) is a financial instrument like a mutual fund whose value depends on the price of gold. In most cases, the price of one unit of gold ETF approximately reflects the price of 1 gram of gold. As the price of gold rises, the price of the ETF is also expected to rise by the same amount. Gold exchange-traded funds are traded on the major stock exchanges including Zurich, Mumbai, London, Paris and New York There are also closed-end funds (CEF's) and exchange-traded notes (ETN's) that aim to track the gold price.

➤ **Mortgage Backed Securities (MBS):** It is a type of asset-backed security, basically a debt obligation that represents a claim on the cash flows from mortgage loans, most commonly on residential property. Mortgage backed securities represent claims and derive their ultimate values from the principal and payments on the loans in the pool.

➤ **Swaps:** It is the exchange of one security for another to change the maturity (bonds), quality of issues (stocks or bonds), or because investment objectives have changed. Recently, swaps have grown to include currency swaps and interest rate swaps. If firms in separate countries have comparative advantages on interest rates, then a swap could benefit both firms. For example, one firm may have a lower fixed interest rate, while another has access to a lower floating interest rate. These firms could swap to take advantage of the lower rates.

➤ **Tracking Stocks:** It is a type of stock issued as per the performance of a particular department on the financial position. This is issued, so that each department can be tracked by investors. These stock earns only from the position of that particular invested department. It does not matter as a whole of the company.

➤ **Fund of Funds:** A "fund of funds" (FoF) is an investment strategy of holding a portfolio of other investment funds rather than investing directly in shares, bonds or other securities. This type of investing is often referred to as multi-manager investment. A fund of funds allows investors to achieve a broad diversification and an appropriate asset allocation with investments in a variety of fund categories that are all wrapped up into one fund.

### **Impact of Financial Innovations**

➤ Alchemists were known for their efforts to Trans mutate common metals into more valuable ones like gold. Alchemy is uncommon today, but the practice of transforming the “bad” to “good” continues, especially in the financial industry through financial innovation. It is widely accepted that innovation, in general, improves productivity and stimulates economic growth. However, it is less clear how financial innovation impacts the real economy.

➤ Although financial innovation can stimulate economic growth (GDP) but it also leads to greater fragility. Financial innovations that improve the effective allocation of capital can be complementary to stability and economic growth. However, new financial products that

disguise or repackage risks, particularly those associated with derivatives and speculative trading, increase volatility in the global financial system. Such volatility and excessive risk exposure can increase the likelihood and losses of economic and financial crises. This is best exemplified by the financial innovations that led to the slicing and repackaging of mortgage-backed securities that fueled the 2007-2008 financial crisis. It has been revealed through various researches that firms with higher levels of financial innovation suffered the greatest losses during the crisis. Since then; regulatory measures (Basel norms) have sought to reduce risk in the financial sector by requiring higher quality capital and assets – which can be used as collateral to back risky activity, such as derivative trading. This is intended to increase stability and confidence in capital markets and by extension, the broader economy. The latest financial innovation is “collateral transformation” – essentially turning risky assets (low-quality capital) into collateral (high-quality capital) that can be used to back risky derivatives trading. This may be simply viewed as compliance with new rules, but risk exposure cannot just disappear. Further slicing and divvying up of risky assets – particularly complex derivatives – will obfuscate where market risks are located and impede the ability of both regulators and banks to manage them. This is not to say that all financial innovation is destructive, but there need to be rules for how new financial products or activities can manipulate and hide risk. Without new rules, financial crises may become the new normal.

➤ The world economy is still choking on these innovative financial products and its impact on the real economy is becoming clear. The current crisis in Cyprus is multifaceted and still unfolding, but a major factor is that the investment portfolios of Cyprus’s biggest banks contained assets that were products of financial. The US and other advanced economies have also suffered economic recessions and high levels of unemployment. New financial innovations like “collateral transformation” that undermine stability and transparency will contribute to, not mitigate, future crises. Furthermore, this type of financial engineering permits more risk-taking in the derivatives markets that determine global food and fuel prices. Instability in these commodity markets impact all countries, but has hugely disproportionate consequences for the world’s poorest. Given the recent damage and potential future consequences, the financial industry needs innovation. However, this innovation must be of a different breed – one that breaks free from pre-crisis models and the short-termism mentality. We need new investment models not investment vehicles. To guide such a shift, the appetite for quick profits will have to be balanced by rules that encourage less-risky, long-term investing.

### **Financial Innovation and India**

➤ The past twenty-five years have witnessed a process of accelerating change in the world’s financial markets. Driven by an interacting process of liberalization and innovation, regulations have been removed, new products have emerged and old boundaries between financial intermediaries have been blurred. Innovation has brought many advantages. The menu of financial assets and liabilities available to end-users has been greatly enlarged. The costs of financial intermediation have fallen. Risk management tools have become increasingly sophisticated. And developing countries have found new ways to mobilize domestic and international savings.

➤ At the same time, however, the growth of financial markets has posed new challenges to economic and financial stability. At the micro-economic level, individual institutions have become more vulnerable to the consequences of miss judgments of misfortune. Systemic risk has grown as institutions and markets have become more interdependent. And at the macro-economic level, liberalization has been associated with continued, or even increased instability in asset prices. Seizing the opportunities provided by capital market innovation, while avoiding the risk of instability, is one of the greatest challenges facing central banks and supervisory authorities in both the developed and developing world.

- There are various key developments in financial markets and the driving forces behind them. Foremost among these driving forces has been deregulation. Deregulation has sometimes been a conscious choice by the authorities and sometimes a recognition that financial innovation has made existing regulations ineffective. Some of the restrictions that have been removed have been domestic in character, such as those that limited banks' freedom to offer market clearing interest rates on deposits or loans, or prevented different kinds of intermediary from competing in each other's traditional fields of business. Other restrictions have been external, such as exchange controls designed to limit international flows of capital. Whatever the nature of the initial restrictions, however, deregulation has enabled financial institutions to compete more freely with each other and to broaden the range of services they offer to customers, both domestic and international.
- Another important influence on financial market developments has been uncertainty – the growing awareness that interest rates and exchange rates can move in unexpected ways that increase the risks associated with economic activity. The 1970s saw the break-down of the Bretton Woods exchange rate system and the beginning of a period of floating exchange rates among the major industrial countries. The 1970s also saw the beginning of a period of fiscal indiscipline and high inflation during which domestic interest rates became much more difficult to predict. As a result, asset values became more volatile than they had been in the 1950s and 1960s. Individuals and commercial firms sought to protect themselves against the consequence of volatile asset prices, and this spurred financial institutions to develop products to meet the new demand to hedge risk.
- Financial innovation was also greatly assisted by the enormous increase in data-processing power resulting from the computer revolution. This has had two effects. Firstly, it has reduced the costs of financial transactions and made possible a large increase in financial intermediation relative to final output. Secondly, it has spawned the growth of products, especially derivative products, whose value would be impossible to calculate on a continuous basis without advanced mathematical techniques and the computing power to apply them.

### **Pros of Financial Market Innovation**

- Every innovation in the financial sector has purportedly the same theme- of the consumer, for the consumer, by the consumer. However, in reality, most financial innovations invariably border on regulatory arbitrage, accounting arbitrage and tax avoidance. An important litmus test for every financial innovation must be the contribution such an innovation makes to the real economy and ultimately, to the society. Though the global financial system has witnessed crises, one after the other in quick succession, our learning's from each crisis have been short-lived. The imperative need for customer centricity and adherence to standards has often been recognized, but has been lost in the rush for short term business gains.
- There are of two kinds of benefits, macro-economic and micro-economic that flow from the integration and sophistication of capital markets. At the macro-economic level, capital market innovation enlarges the menu of assets available to savers and borrowers. By designing savings vehicles in a more attractive way and extending the reach of financial intermediation, saving is encouraged, and the utility of a given volume of savings to the holders of financial assets is enhanced. Similarly on the borrowing side: the introduction of new borrowing instruments facilitates capital formation and, perhaps even more important, helps improve its quality. If secure and liquid financial assets are readily available, yielding competitive real rates of interest, savings are less likely to be retained by firms for low-productivity investments, or diverted into inflation hedges.
- Another macro-economic benefit springs from closer international links among capital markets and financial institutions. The integration of capital markets across borders makes it easier for savings arising in mature economies to be used to finance higher-yielding

investment opportunities in economies with higher growth potential. This promotes economic growth in two ways: by improving the efficiency of investment; and by strengthening the discipline on governments and central banks to pursue sound policies.

➤ At the micro-economic level, the development of new financial instruments improves the capacity of financial intermediaries and end-users of financial markets to manage risks. Better risk management, in turn, leads to the improved allocation of resources, in particular capital.

➤ Any discussion of risk management leads directly to consideration of the role of derivatives. Derivatives are, above all, a means of 'unbundling' risks into various elemental components, such as credit risk, interest rates risk, exchange rates risk and so on. This enables the various risk components to be more clearly identified and priced, and if necessary traded. Derivatives therefore facilitate the adjustment of risk exposures for speculative or hedging purposes. This helps to redistribute risks in the economic system to those most willing, and presumably most able, to bear and manage them.

➤ Derivatives can be tailored to the particular risk management needs of customers. They thereby allow the creation of pay-off characteristics – or heading possibilities – at a lower cost than would result from the acquisition of underlying assets. This is particularly valuable for those who manage large portfolios such as insurance companies and pension funds, as well as for multinational companies that have streams of payments and receipts subject to the multiple uncertainties of commodity price, exchange rate and interest rate fluctuations. In all of these ways, financial market innovations move us towards what are technically known as 'complete markets'; In this way, they allow market participants to insure themselves against 'state of the world' that might adversely affect their business. This is a tremendous advantage. All economic activity involves risk. But if we can allow business and individual to focus on those risks they know and understand, while hedging those risks that are incidental to their main business activity, then efficiency will be improved and long-term investment will be more attractive.

## CONS

➤ Innovations in financial products have given rise to some new challenges for market participants and their supervisors in the areas of systemic risk. An important feature of periods of financial innovation is that the rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement infrastructure (in the credit derivatives sector the gaps in the infrastructure and risk management systems are considered the most conspicuous). The complexity of some financial innovations and the relative immaturity of the various approaches used to measure the risks in those exposures amplify the uncertainty involved. Furthermore, because the financial innovation takes place in a period of generally favorable economic and financial conditions, we do not know how these markets will function in condition of stress

➤ The *innovation-fragility view*, focuses on the 'dark' side and has identified financial innovations as the root cause of the recent Global Crisis, by leading to an unprecedented credit expansion that helped feed the boom and subsequent bust in housing prices (**Brunnermeier 2009**), by engineering securities perceived to be safe but exposed to neglected risks (**Gennaioli et al. 2012**), and by helping banks and investment banks design structured products to exploit investors' misunderstandings of financial markets (Henderson and Pearson 2011). Paul Volcker, former chairman of the Federal Reserve, claims that he can find very little evidence that the financial innovations in recent years have done anything to boost the economy.

## Conclusion

The developed capital market provides access to the foreign capital for domestic industry. Thus capital market definitely plays a constructive role in the overall development of an economy. The lack of an advanced and vibrant capital market can lead to underutilization of financial resources hence the Indian financial system has undergone structural transformation over the past decade. The financial sector has acquired strength, efficiency and stability by the combined effect of competition, regulatory measures, and policy environment which had also stimulated the process of financial innovations.

The past 25 years have witnessed a huge growth in financial innovations. Greater freedom and flexibility has enabled companies to reinvent and innovate financial instruments. Also increased interest rate, volatility, frequency of tax and regulatory changes etc are some other factors that have contributed towards the development of various innovative products.

Financial innovation contributes to the vitality and growth of the global economy and will continue to open up new opportunities for economic growth and wealth-creation around the globe, despite the part it might have played in the financial crisis beginning in 2007. It also helps to solve many pressing problems in both developed and less-developed societies. New financial products that disguise or repackage risks, particularly those associated with derivatives and speculative trading, increase volatility in the global financial system. Such volatility and excessive risk exposure can increase the likelihood and losses of economic and financial crises. Thus, regulatory measures (Basel norms) have sought to reduce risk in the financial sector.

The integration and sophistication of capital markets has brighter as well as a darker side. On one hand capital market innovation enlarges the menu of assets available to savers and borrowers by designing savings vehicles in a more attractive way and extending the reach of financial intermediation. Also introduction of new borrowing instruments facilitates capital formation. On the other hand innovations in financial products have given rise systemic risk. Rapid increase in new products and changes in the structure of those markets can outpace the development of the risk management and processing and settlement.

Thus it can be concluded that financial innovations are an integral part of an economy. Even though it has darker side yet the brighter on outperforms it. The past decades have seen a lot of development in this sector which has proved to be beneficial for the economy.

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