

# FINANCIAL INNOVATION IN INDIAN CAPITAL MARKET: CONCEPT AND IMPLICATIONS

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## ABSTRACT

*Financial innovation has emerged as life blood of efficient and responsive capital market. The Financial innovation comprises of advances over time in the financial instruments and payment systems used in the lending and borrowing of funds. These changes includes innovations in technology, risk transfer and credit and equity generation, have increased available credit for borrowers and given banks new and less costly ways to raise equity capital, are integral part of financial innovation. The present paper aims to limelight the conceptual framework of financial innovations and also the various innovative financial products that are traded in Indian capital market. The paper also dealt with the implications of financial innovations on financial market. Secondary data is used for this study, which is gathered from various sources such as Research papers, websites, Articles etc. In the end, the paper concludes with that the growth of the financial innovations in the financial sector should be promoted in every possible manner for continued growth and development as these innovation and technologies drives economic growth and economic development of the country, only then it will play an important role in promoting global growth, especially in emerging markets and developing countries like India.*

**Keywords :** - Financial Innovation, Capital Market, Technology, Equity Capital, Development.

## 1. INTRODUCTION

The current scenario of Indian economy cannot be extent until it is supported by an efficient financial system. The financial system can be defined as a cluster of markets, institutions, instruments and regulations through which the financial securities are traded, interest rates are determined and financial services are produced and delivered around the world. It is a continuous and dynamic process that entails the creation and subsequent popularization of new financial instruments, as well as, new financial technologies, institutions, and markets. With the advent of technology and deregulation of capital market, there is a huge scope for bringing in innovative financial products in the Indian capital market.

### 1.1 THE INDIAN CAPITAL MARKET

A capital market is a place where both government and companies raise long term funds to trade securities on the bond and the stock market. It consists of both the primary market where new securities are issued among investors, and the secondary markets where already existent securities are traded. In the capital market, commodities, bonds, equities and other such investment funds are traded. There are 23 stock exchanges in India, first being the Bombay Stock Exchange (BSE), which began formal trading in 1875. Over the past few years, there has been a swift change in the Indian capital markets, especially in the secondary market. In terms of the number of companies and total market capitalization in share market, the Indian equity market is considered large relative to the country's stage of economic development.

## 2. OBJECTIVE OF STUDY

- To study about the conceptual framework of Financial Innovation.
- To study about various innovative financial products that are traded in capital market.
- To study also the implications of innovation on financial market.

### 2.1 REVIEW OF LITERATURE

Boot and Thakor (1997) use a theoretical model to illustrate that the probability of innovation in the financial sector rises with specialization (boutique firms) and competition. Bhattacharyya and Nanda (2000) show that higher market share and more developed client relationships increase the incentive of investment banks to innovate. Technological shocks stimulate innovation: Shocks to technology are thought to provide a “supplyside” explanation for the timing of some innovations. IT and other inventions and innovations in telecommunications (and more recently the Internet) has facilitated a number of innovations (not all successful), including new methods of underwriting securities (e.g., OpenIPO), new methods of assembling portfolios of stocks (folioFN), new markets for securities and new means of executing security transactions. White (2000) articulates this technological view of financial innovation. New “intellectual technologies,” i.e., derivative pricing models, are credited with stimulating the growth and popularization of a variety of new contracts. Many new forms of derivatives were made possible because business people could have some confidence in the methods of pricing and hedging the risks of these new contracts. Different forms of innovations such as new risk management systems and measures (such as Value-at-Risk based measures), on-line retirement planning services (like Financial Engines), and new valuation techniques (like real options) clearly were facilitated by both intellectual and information technology innovations.

Tufano (1989) examines a cross-section of new securities to examine whether financial product innovators enjoy first mover advantages. Specifically, he uses a sample of 58 innovations (representing 1,944 public offerings) to test whether investment banks that create new securities benefit by charging higher prices (underwriting spreads) than imitators or by capturing larger quantities. Ross (1989) develops a model in which new financial products must overcome marketing and distribution costs. Persons and Warther (1997) studied booms and busts associated with financial innovation.

Tufano (2003) and Duffie and Rahi (1995) provided useful reviews of the literature. The extensive literature on principal-agent problems, adverse selection, and information asymmetry points to why investors might prefer some types of securities, such as debt, over others like equity. Shiller (2008) described some of the frustrations involved with creating a market for house price futures.

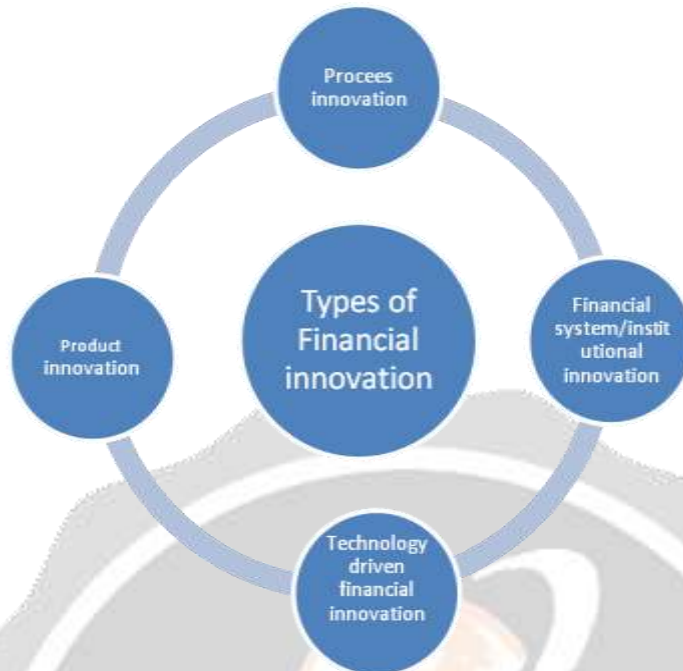
### 2.2 RESEARCH METHODOLOGY

Secondary data has been taken for this study, which is gathered from different sources such as Research papers, Newspapers articles, Internet etc.

## 3. DISCUSSIONS

Financial innovation is a continuous, dynamic process that entails the creation and subsequent popularization of new financial instruments, as well as new financial technologies, institutions, and markets.

### 3.1 Types of Financial Innovation



**Fig -1: chart.**

- ✚ **Financial system/institutional innovations:** Such innovations can effects the financial sector as a whole, relate to changes in business structures, to the establishment of new types of financial intermediaries, or to changes in the legal and supervisory framework. Important examples include the use of the group mechanism to retail financial services, formalizing informal finance systems, reducing the access barriers for women, or setting up a completely new service structure.
- ✚ **Process innovations:** Such innovations cover the introduction of new business processes leading to increased efficiency, market expansion, etc. Examples include office automation and use of computers with accounting and client data management software.
- ✚ **Product innovations:** Such innovations include the introduction of new credit, deposit, insurance, leasing, hire purchase, and other financial products. Product innovations are introduced to respond better to changes in market demand or to improve the efficiency of product markets.
- ✚ **Technology driven financial innovation:** Advancements in Information Technology have facilitated a number of innovations, such as new methods of underwriting securities, Assembling portfolios of stocks, New markets for securities, New means of executing security transactions, Many new forms of derivatives have been made possible because business people could have some confidence in the methods of pricing and hedging the risks of these new contracts. Various forms of innovations such as new risk management systems and measures, on-line retirement planning services and new valuation techniques were clearly facilitated by both intellectual and information technology innovations.

### 3.2 Some of the innovative financial instruments used in the Indian Financial Market are explained as follows:

- ✚ **Triple Option Convertible Debentures (TOCD):** First Issued by Reliance Power Limited with an issue size of Rs. 2,172 Cr. There was no outflow of interest for first five years, Equity increase was in phases. There is No put option to investors and no takeover threat. It reduced dependence on the financial institutions. The expenses for floating the issue was just 2.62% of the issue size which was very less when compared to the 10-12% for a general public issue.

- ✚ **Deep Discount Bonds:** The investor got a tax advantage and could eliminate the re-investment risk. From the issuer's point of view also, the issue cost was saved as it involved no immediate service cost and lower effective cost. The refinancing risk was also eliminated.
- ✚ **Floating Rate Notes:** First issued by Tata Sons with a floor rate of 12.5% and a cap of 15.5% and a reference rate of 364 T-Bill yield, which was 9.85% at the time of issue. The investors would get a minimum return of the floor rate and the maximum return was the cap rate. They would get higher than floor rate depending upon the fluctuations in the reference rate.
- ✚ **Zero Coupon Bonds:** It did not involve any annual interest on the bonds. But it had a higher maturity value on the initial investment for a particular time period.
- ✚ **Convertible and Zero Coupon Convertible Bonds:** Similar to the zero coupon bonds except that the effective interest was lower because of the convertibility.
- ✚ **Inflation linked bonds:** Inflation linked bonds (ILB) securities give an opportunity to market participants and investors to hedge against inflation. The coupon (interest rate) of ILB is fixed but the underlying principal would move in tandem with the inflation levels in the country. At redemption of the securities the higher of the value (adding inflation) thus arrived or face value is paid off. Banks and Financial Institutions usually buy wholesale and create retail market for such securities. With right access retail investor can easily buy such securities to protect himself from inflation

For Investors in general, inflation linked bonds would provide distinct advantages:

1. It allows investors to hedge the purchasing power (inflation) risk. The capital is inflation risk protected and the income (coupon) can be structured that way too.
  2. Inflation linked bonds universally are regarded as a separate asset class & would provide diversification benefits to a portfolio due to its negative co relation with returns from traditional asset classes.
  3. Such bonds provide positive risk reward relationship too.
  4. Inflation linked bonds are effective vehicle for hedging risks for institutional investors, where the long term liabilities are inflation linked or linked to future wage levels or banks who face the inflation risk on their assets side due to their GOI Bond holdings.
  5. Access of FIIs to the inflation linked bonds can allow them to hedge their inflation risks in India which are currently expressed in the currency markets. The USD/INR (currency) volatility can hence come down hence.
- ✚ **Secured Premium Notes (SPNs):** First issued by TISCO in July, 1992. These financial instruments were secured against the assets of the company but the investors had to pay a premium over the market price for these types of instruments.
  - ✚ **Pension Funds:** International experience shows that pension funds have indeed provided the much-needed boost to the development of corporate debt markets both in terms of demand for corporate bonds as also liquidity apart from improving the market microstructure. Pension funds have also been major stimulators of financial innovation as they have directly or indirectly supported product innovation by supporting the development of asset backed securities, structured finance, derivative products and so on. Pension fund presence in the bond market is likely to increase the availability of long term funds in the market, which in turn will improve the asset liability mismatch that often arises in projects with long gestation periods.
  - ✚ **Economy growth futures:** This is a unique type of futures contract that can be raised in India as in this there should be an index which measures the economy growth and futures can be predicted on the underlying growth. In this there should be a hypothetical index created on the basis of growth of an economy. It can be measured on the growth 3, 6, 9, 12 months. Every quarter the growth can be measured and compared with future contract. Based on the conditions prevailing in the economy and also the world scenario should be predicted and accordingly the moment of the future contract can be decided.
  - ✚ **Credit Derivatives:** Credit derivatives are over the counter financial contracts. They are usually defined as "off-balance sheet financial instruments that permit one party (beneficiary) to transfer credit risk of a reference asset, which it owns, to another party (guarantor) without actually selling the asset". It, therefore, "unbundles" credit risk from the credit instrument and trades it separately.



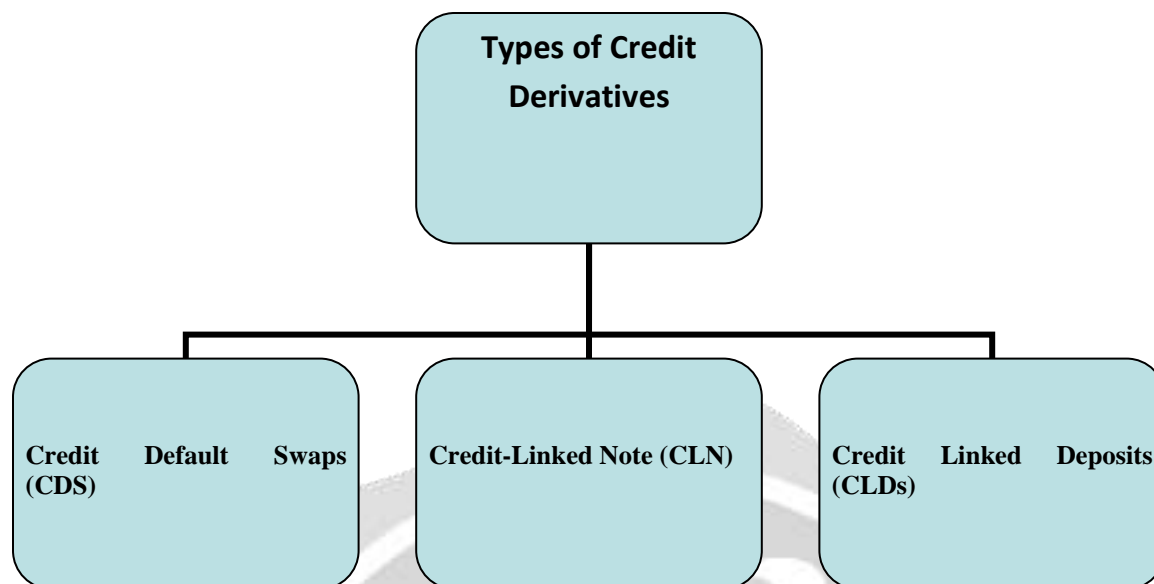



Fig.2 - Chart

- ✚ **Credit Default Swaps (CDS):** CDS have grown rapidly in the credit risk market since their introduction in the early 1990s. It is believed that current usage is but a small fraction of what it will ultimately represent in the credit risk markets. In particular, the CDS market will become as central to the management of credit risk as the interest rate swap market is to the management of market risk.
- ✚ **Credit-Linked Note (CLN):** CLN market is one of the fastest growing areas in the credit derivatives sector. It is, a combination of a regular note (bond or deposit) and a credit-option. Since it is a regular note with coupon, maturity and redemption, it is an on-balance sheet equivalent of a credit default swap. Under this structure, the coupon or price of the note is linked to the performance of a reference asset. It offers borrowers a hedge against credit risk and investors a higher yield for buying a credit exposure synthetically rather than buying it in the publicly traded debt.
- ✚ **Credit Linked Deposits (CLDs):** CLD are structured deposits with embedded default swaps. Conceptually they can be thought of as deposits along with a default swap that the investor sells to the deposit taker. The default contingency can be based on a variety of underlying assets, including a specific corporate loan or security, a portfolio of loans or securities or sovereign debt instruments, or even a portfolio of contracts which give rise to credit exposure. If necessary, the structure can include an interest rate or foreign exchange swap to create cash flows required by investor.
- ✚ **Weather Derivatives:** A weather derivative contract may be termed as a financial weather dependent contract whose payoff will be determined by future weather events. The settlement value of these weather events associated with a particular instrument is determined from a weather index, expressed as values of a weather variable measured at a stated location at a particular time. These derivatives are financial instruments that can be used by organizations or individuals to reduce the risk associated with adverse or unexpected weather outcomes. The difference from other derivatives is that the associated asset (rain/temperature/snow) has no direct value to price the weather derivative. Weather Derivatives can be an important tool to hedge against losses occurring from uncertain weather conditions and can help reduce the impact of adverse weather on a company's profitability.
- ✚ **Mortgage Backed Securities (MBS):** A type of asset-backed security that is secured by a mortgage or collection of mortgages. These securities must also be grouped in one of the top two ratings as determined by a accredited credit rating agency, and usually pay periodic payments that are similar to coupon payments. Furthermore, the mortgage must have originated from a regulated and authorized financial

institution. When you invest in a mortgage-backed security you are essentially lending money to a home buyer or business. An MBS is a way for a smaller regional bank to lend mortgages to its customers without having to worry about whether the customers have the assets to cover the loan. Instead, the bank acts as a middleman between the home buyer and the investment markets. This type of security is also commonly used to redirect the interest and principal payments from the pool of mortgages to shareholders. These payments can be further broken down into different classes of securities, depending on the riskiness of different mortgages as they are reclassified under the MBS. However, the long-term tenure of MBS and the lack of liquidity in the secondary market discourage investors from getting actively involved in the market. Also home loans in India get pre-paid or re-priced, thus exposing the structures to significant interest rate risk and leading to higher credit enhancement requirements.

 **Indian Depository Receipts (IDR):** After the success of American Depository Receipts and Global Depository Receipts the Indian regulatory body, SEBI also allowed foreign companies to raise capital in India through INDIAN DEPOSITORY RECEIPTS (IDRs). IDRs can be understood as a mirror image of well-known ADRs/GDRs. In an IDR, foreign companies issue the shares to an Indian Depository, which would, issue Depository Receipts to investors in India. The Depository Receipts would be listed on Indian stock exchanges and would be freely transferable. The actual shares of the IDRs would be held by an Overseas Custodian, who shall authorize the Indian Depository to issue the IDRs. The Overseas Custodian must be a foreign bank having business in India and needs approval from the Finance Ministry for acting as a custodian while the Indian Depository needs to be registered with the SEBI.

### Issuers Eligibility Criteria

- Must have an average; turnover of US\$ 500 million during the previous 3 financial years.
- Must have capital and free reserves which must aggregate to at least US\$100 million.
- Must be making a profit for the previous 5 years and must have declared a dividend of 10% in each such year.
- The pre issue debt-equity ratio must be not more than 2:1.
- Must be listed in its home country.
- Must not be prohibited by any regulatory body to issue securities.
- Must have a good track record with compliance with securities market regulations.
- Must comply with any additional criteria set by SEBI

### IMPLICATIONS OF INNOVATION ON FINANCIAL MARKETS:

Financial innovations have a direct impact on the financial markets. It majorly impacts the asset prices, international price relationships, and market behaviour. The major implications of innovations in financial markets are as under:

- Lower transaction costs
- More liquidity
- Diversification of risk
- More competition in financial markets
- Increased opportunities for making investment
- More financial product to select for investment
- International markets relationships and capital mobility
- Greater integration of international markets
- Significant impact of changes in currency rates and exchange rates

### 4. CONCLUSIONS

Despite the accelerated industrial growth experienced this decade from recent economic reforms, most major investors around the globe do not yet see India as an ideal country for foreign investment. The competition for global capital will only get tougher in the years to come, and unless the political, judicial and economic environments are right, India will lag behind many other emerging nations. More importantly, the rising expectations of the middle-class, widening income and wealth inequalities between the haves and have-nots, require

efficient initiatives from Government and corporate to attract and accommodate the funds available. So, the role of the financial innovations in the present financial system of today should be properly understood to reduce the complexities and take full advantage of these innovations.

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