Excel Journal of Engineering Technology and Management Science
(An International Multidisciplinary Journal)
Vol. I No. 4 January - June 2013-14 (Online) ISSN 2277-3339

A STUDY ON FINANCIAL INNOVATION TOWARDS GROWTH OF CAPITAL MARKETS IN INDIAN CORPORATE

* ***Dr. Dilip Misal,*** *Assitant Professor & Head Department of Economics C.S.P.M Arts senior college, Aurangabad.*

INTRODUCTION:

Can financial innovation be the primary tool to achieve sustainable growth in the world's second-fastest growing major economy. The notion that fast-paced financial innovation can help emerging economies achieve growth turned out to be a myth in the aftermath of the 2008-09 global financial crisis that tested market fundamentals. For India, too, experts say the path to sustainable growth lies in business innovation and sectoral reform rather than in mere innovation. "The word financial innovation has become disreputable after the banking crisis," said Saurabh Tripathi, partner at Boston Consulting Group. "For India, while innovation has helped in some areas like core sector financing through instruments like infrastructure debt funds, it will not help for overall growth unless backed by proper business model(s)." India's banking system has seen some major financial innovations in the past decade as well as steps to promote financial inclusion, schemes that aim to take banking services to yet-to-be-banked areas. These include mobile and Internet banking, introduction of no-frill accounts and the introduction of business correspondents, who are individuals or institutions acting as agents of banks in far-flung areas In addition to these, nationwide computerization of bank branches through the implementation of core banking solutions (CBS) is designed to make banking possible for customers anywhere. Also, a huge increase in the number of automated teller machines (ATMs) has enabled easy access to basic banking services. At the macro level, some of the innovations include the loan securitization process, or the pooling of parts of loan portfolios and selling these to other parties, and recently, the deregulation of savings deposit rates, which were the last set of regulated interest rates in the country. These reforms, though touted as measures towards moving closer to inclusive and sustainable growth, are unlikely to succeed in making a difference at the grassroots, experts say. "There is still a long way to go," says A.K. Khandelwal, former chairman and managing director of Bank of Baroda. "Even when we talk about rising ATM usage, there are many locations which are not getting even 300 hits per day because many banks have put up ATMs in the same place." Though banks should be commended for implementing CBS, they are not utilizing it fully, Khandelwal said. "Some bank tellers still do not have universal rights, which means they cannot pass all checks, so what is the point of having CBS?" he said. "Investing in technology is fine but it should not on its own become an NPA (non-performing asset)." For instance, though several banks have introduced mobile banking, few customers use the service either because of a lack of awareness or a fear of security lapses. According to the Reserve Bank of India's (RBI) latest data, on an average, only around 680,000 transactions amounting to Rs 61 crore are settled through this channel every month.

Economic theory has much to say about what types of securities should exist, and why some may not exist (why some markets should be "incomplete") but little to say about why new types of securities should come into existence. One interpretation of the Modigliani-Miller theorem is that

taxes and regulation are the only reasons for investors to care what kinds of securities firms issue, whether debt, equity, or something else. The theorem states that the structure of a firm's liabilities should have no bearing on its net worth (absent taxes, etc.). The securities may trade at different prices depending on their composition, but they must ultimately add up to the same value. Furthermore, there should be little demand for specific types of securities. The capital asset pricing model, first developed by Treynor and Sharpe, suggests that investors should fully diversify and their portfolios should be a mixture of the "market" and a risk-free investment. Investors with different risk/return goals can use leverage to increase the ratio of the market return to the risk-free return in their portfolios. However, Richard Roll argued that this model was incorrect, because investors cannot invest in the entire market. This implies there should be demand for instruments that open up new types of investment opportunities (since this gets investors closer to being able to buy the entire market), but not for instruments that merely repackage existing risks (since investors already have as much exposure to those risks in their portfolio). If the world existed as the Arrow-Debreu model posits, then there would be no need for financial innovation. The Arrow-Debreu model assumes that investors are able to purchase securities that pay off if and only if a certain state of the world occurs. Investors can then combine these securities to create portfolios that have whatever payoff they desire. The fundamental theorem of finance states that the price of assembling such a portfolio will be equal to its expected value under the appropriate risk-neutral measure.

REVIEW OF LITERATURE

Tufano (2003) and Duffie and Rahi (1995) provide 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. Myers and Majluf (1984) develop an adverse selection model of equity issuance, in which firms (which are trying to maximize profits for existing shareholders) issue equity only if they are desperate. This was an early article in the pecking order literature, which states that firms prefer to finance investments out of retained earnings first, then debt, and finally equity, because investors are reluctant to trust any firm that needs to issue equity.

Duffie and Rahi also devote a considerable section to examining the utility and efficiency implications of financial innovation. This is also the topic of many of the papers in the special edition of the *Journal of Economic Theory* in which theirs is the lead article. The usefulness of spanning the market appears to be limited (or, equivalently, the disutility of incomplete markets is not great).

Allen and Gale (1988) is one of the first papers to endogenize security issuance contingent on financial regulation—specifically, bans on short sales. In these circumstances, they find that the traditional split of cash flows between debt and equity is not optimal, and that state-contingent securities are preferred. 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.

The fixed costs of creating liquid markets for new financial instruments appears to be considerable. Black and Scholes (1974) describe some of the difficulties they encountered when trying to market the forerunners to modern index funds. These included regulatory problems, marketing costs, taxes, and fixed costs of management, personnel, and trading. Shiller (2008) describes some of the frustrations involved with creating a market for house price futures.

FUNCTIONS OF FINANCIAL INNOVATIONS

The financial innovations help in

- moving funds across time and space;
- pooling of funds;
- managing or reallocating risk;
- extracting information to support decision-making;
- addressing asymmetric information problems;
- facilitating the sale or purchase of goods and services through a payment system;
- reducing agency cost, and enhancing liquidity

INNOVATIONS IN FINANCIAL PRODUCTS

After the liberalization measures were announced in 1991, Indian Company under took issuance of new instruments seriously in order to attract large section of investors. Essar Steel used convertible debentures with warrants and loyalty coupons, Tata Iron and Steel Company Limited issued secured Premium Notes with warrants, Flex Industries issued partly convertible debentures and non convertible debentures with warrant attached to each instrument DLF aments issued multiple option bonds, Essar oil issued optionally fully convertible debentures and Reliance Petroleum issued triple option convertible with equity warrant and Esab India issued partly convertible debenture. This burst of innovation has seen a typical shift in the design and development of new instrument. The classic conversion is that of debt in to equity. Offering the investor the option of conversion keeps the cost of his convertible debt lower than straight debt, thus minimizing the cash out flows during the gestation period. Once the project yields steady profits, the equity conversion results in a relatively- expensive dilution. The use of fectures like warrants makes the equity and convertible less expensive for the investor. It creates possibilities for their full subscription by the investors and also turns out to be cheaper for the issuing company.

Knowledge Driven Financial Innovations

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

New intellectual technologies, such as derivative pricing models, are credited with stimulating the growth and popularization of a variety of new contracts. 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. Some of the innovative financial instruments used by the companies in the Indian Financial Market are explained as follows:

1) 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.
- No put option to investors and no takeover threat.
- 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.

2) 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.

3) 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.

4) 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.

5) CONVERTIBLE AND ZERO COUPON CONVERTIBLE BONDS:

- Similar to the zero coupon bonds except that the effective interest was lower because of the convertibility.

6***) 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.

7) EQUITY WITH DIFFERENTIAL VOTING RIGHTS:

- Issued by Tata Motors, in which the shares were classified as "Ordinary Shares" and "A Ordinary Shares".
- The ordinary shares were issued at Rs. 340 per share, had a voting right of one vote per share.
- On the other hand, the A ordinary shares were issued at Rs. 305 per share but the voting rights were limited to one vote for every 10 shares. In addition, they were paid extra dividend of five percentage points.

FINANCIAL INNOVATION IN CAPITAL MARKET

- India has witnessed innovations in the area of financial engineering. These financial innovations are a result of number of Government regulations, tax policies, globalization, liberalization, privatization, integration with the international financial market and increasing risk in the domestic financial market. With the increased volatility in the capital market, the need for new financial innovations to hedge risk and increase returns cannot be overstated. The financial innovations in the area of capital market in India are discussed below:
- **Currency Futures**: Currency derivatives were launched in August 2008 at National Stock Exchange. A currency future is a futures contract where the underlying asset is a specific foreign currency and amount. Profits and losses depend on the relative movements of the two currencies. This enables the market participants to hedge their risk in the currency market.
- **Long Term Option Contract**: Securities and Exchange Board of India (SEBI) has permitted the use of Long Term Option Contract (LTOC) on S&P CNX Nifty for trading in Future and Option segments from January 2008 onwards. The advantage of LTOC is that all the existing risk management measures used for index option contract such as initial margins, short option minimum change position limit and including the right of clearing corporation to close out positions can apply to LTOC on S&P CNX Nifty also.
- **India VIX - The Volatility Index** : India VIX - Volatility index is based on Nifty 50 option prices. The purpose of the index is to capture the implied volatility embedded in option prices. It shows the amount by which the underlying index is expected to fluctuate in the near future. It is based on the order book of the underlying index options.
- **National Spot Exchange Limited**: The cost of intermediation in the commodity futures market being high, reduce the marketing efficiency and gains made by a farmer. The National Spot Exchange Limited (NSEL) helps in reduction of costs and enables farmers to realize better price for their produce. It is advantageous as in future market trades happen for big volumes, in tons, whereas in spot market the trading happens for low volumes, say one quintal trading lot for one farmer. Moreover, farmer does not need pan card number, ration card and other formalities, which are necessary in future trading. In future market the delivery is not guaranteed but in the spot market, the contracts are designed with compulsory delivery on T+1 and T+3 basis.
- **Extension of Circuit Breaker to Index based Market**: Circuit breakers are normally applied to individual scrips to suspend trading in case of their excessive volatility. The same concept has been financially engineered for the exchange in case of the index movement either way at 10%, 15% and 20% with respect to some base level. The advantage of Index based market wide circuit breaker is that it provides stability to the index and enhances investor's protection.
- **Mutual Funds**: With deep fall in the stock market in 2008 the mutual fund industry tend towards financial innovations for dealing with market turmoil. New financial innovations

were introduced in the mutual fund sector. The following paragraphs discuss innovations in mutual fund sector.

- **Arbitrage Fund**: Arbitrage Funds are equity and derivative funds providing an ideal way of realizing reasonable returns from equities with risk hedged by derivatives. The Arbitrage Fund capitalize on the stock price differences between the spot market (cash segment) and the derivative market (F & O segment). The fund generates returns by availing the arbitrage opportunities that arise in case there are mispricing between the spot and derivative market. The returns can be generated irrespective of the overall market movement. Empirically they have shown better results then debt or income funds. They provide good returns during volatile periods.
- **Mutual Funds and Derivative Strategy**: With a view to deal with global financial crisis, financial engineers have innovated equity linked fixed maturity plan mutual fund which involves taking position with minimal market risk. The fund buys one stock (or its derivative) and sells another (or its derivative). This is done by identifying the trend i.e. benefiting one company and at the same time detrimental to another.
- **Fund of Funds** : The mutual fund industry innovated a noble way for achieving the maximum diversification and minimising risk, by developing a mutual fund which derives its value from a pool of mutual funds which are under the management of the same company.

RECENT CAPITAL MARKET INNOVATIONS

- Exchange Traded Interest Rate Futures: SEBI has introduced Exchange traded 10-Year Notional Coupon bearing Government of India (GOI) security futures with specified details in terms of product design, risk management measures and other related issues. For trading in Exchange Traded Interest Rate Futures, recognized Stock Exchanges and their Clearing Corporations / Clearing Houses, Clearing Members and Trading Members are required to fulfil certain prescribed conditions. To operationalise 10-Year Notional Coupon-bearing GoI security Futures, it has been clarified that the Exchanges shall select their own basket of securities from the eligible Deliverable Grade Securities, viz., GoI securities maturing at least 7.5 years but not more than 15 years from the first day of the delivery month with a minimum total outstanding stock of Rs 10,000 crore. Exchanges are also required to disclose upfront to the market participants the composition of the basket of deliverable grade securities and the associated conversion factors for each of the quarterly contracts.
- Revision of Basket of Deliverable Grade Securities is permissible. The additions, if any, made to the basket of deliverable grade securities disclosed upfront by the Exchange for each of the quarterly contracts, is required to be made not later than 10 business days before the first business day of the delivery month. The determination of daily settlement price (DSP) has also been prescribed.
- **Derivative Contracts on Volatility Index**: SEBI has permitted Stock Exchanges to introduce derivative contracts on Volatility Index, subject to the condition that the

underlying Volatility Index has a track record of at least one year and the Exchange has in place the appropriate risk management framework for such derivative contracts.

- Before introduction of such contracts, the Stock Exchanges are required to submit the Contract specifications, position and Exercise Limits, Margins, the economic purpose it is intended to serve, likely contribution to market development, the safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading, the infrastructure of the exchange and the surveillance system to effectively monitor trading in such contracts, and details of settlement procedures & systems.
- **Index options with tenure up to 5 years**: SEBI permitted Stock Exchanges to introduce option contracts on Sensex and Nifty with tenure up to 5 years subject to the condition that there are 8 semi annual contracts of the cycle June/December in sequence to 3 serial monthly contracts and 3 quarterly contracts of the cycle March/June/September/December. The Exchange must also have in place the appropriate risk management framework for such derivative contracts.
- **Call Auction in Pre-open Session:** SEBI has decided to introduce call auction mechanism in pre-open session. To begin with, pre-open session shall be introduced on a pilot basis by BSE and NSE for the scrips forming part of Sensex and Nifty.
- **Options on USD-INR Spot Rate** : SEBI has permitted introduction of options on USD-INR spot rate on currency derivatives segment of eligible Stock Exchanges with its prior approval. SEBI has also prescribed detailed product design and risk management framework for options on USD-INR spot rate including the position limits at various levels such as client, trading member, bank and clearing member level.

CONCLUSION

The pace of capital and credit reforms is rapid and is transforming the scenario. The existence of a variety of financial innovations with different terms and conditions, now provide a wide choice of instruments to suit the investment portfolio needs. They have led the growth of capital market and would continue to play their part, yet like other emerging market, Indian market is also evolving and maturing. It is in a favorable situation with regard to lesser complexity of instruments, adequate governance and risk management systems

REFERENCES

1. Annual Report : Ministry of Finance , Reserve Bank of India , Securities and Exchange Board of India
2. Economic Survey, Government of India
3. http//: www.finmin.gov.in
4. http//: www.rbi.gov.in
5. http//: www.sebi.gov.in
6. http//: www.articlesbase.com
7. http//: www.findarticles.com
8. "Innovations in Financial Products"– V. Prasanna Bhat,Business Line, Financial daily