



Financial Innovations towards Indian Capital Markets

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Abstract: Innovation is recognized as the critical source of economic growth and of improvements in social welfare. 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. Hence there is a significant need for financial innovation in the Indian industries, which is a key to the development. **Keywords:** Indian Depository Receipts, junk bonds, New Pension Scheme Weather Derivatives

1.

Introduction: 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 un-packaging 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.

2. 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 22 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.

3. Recent Development in Equity Market

Free pricing- The abolition of office of the controller of capital issue resulted in the emergence of new era in primary markets. All controls on designing, pricing and tenure were abolished. The investors were given the freedom to price an instrument.

Entry Norms- Hitherto no restrictions for a company to tap the capital markets. This resulted in a massive surge of small cap issues. The need for transparent free entry was felt by SEBI.

Disclosures- The quality of disclosure of the offer document was really poor. A lot of vital adverse information was not disclosed. SEBI stringent disclosure norms were introduced.

Book Building- It is the process of price discovery. One of the drawbacks of free pricing was price mechanism. The issue price has to be decided around 60-70 days before the opening at issue. Introduction to price building has overcome the limitation of the price mechanism.

Streamlining the procedures- All the procedure was streamlined. Many

aspects of the operations have been made transparent.

4. Scope of Further Equity Instruments

4. 1. 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.

5. Scope of Innovations in Bond Market

5.1. Inflation Linked Bonds (ILB): The recent Monetary Policy released by RBI laid its thrust on controlling the spiralling inflation, especially the food price inflation. One of the reasons behind the CRR hike was to "curtail the rising inflationary expectations (higher expected price trends)"

In the past RBI has been concerned about the fact that a common man does not have any protection against rising prices, Vis. No Inflation Hedge. The



common man has to rely on traditional but inefficient methods to hedge the real inflation risks, such as Gold and real assets such as commodities or real estate or even excessive stocking of goods. In developed markets like US, the government has issues "Treasury Inflation Protected Securities" known as TIPS. Globally more than USD 1 trillion worth inflation linked bonds must be outstanding.

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.

5.2. Junk Bonds

Sharp movements in the Indian equity market may be par for the course. But when it comes to the market for corporate bonds, it's constantly stagnant. The reason is, we don't have a corporate bond market. But this is overwhelmingly dominated by government securities (about 80% of the total). Of the remaining, close to 80% again comprises privately placed debt of public financial institutions. An efficient bond market helps corporate reduce their financing costs. It enables companies to borrow directly from investors, bypassing the major intermediary role of a commercial bank. One of the important instruments in corporate market is Junk Bonds which could be great source of financing for countries like India where markets are not much regulated.

5.2.1. Proposed Junk Bond Market In India - Scenario (Optimistic & Realistic)

An optimistic scenario would be having junk bonds in the market ideally for funding by FIIs and Institutions for financing the small Indian companies. However, considering the risk associated with these bonds it might not be possible in near future because economy is still in its nascent phase and on a fast development track. So any move which is risky and can affect future inflows of foreign funds and investor confidence would not be ideal.

The only way an investor should invest in junk bonds is by diversifying. A selection of at least half a dozen issues will afford the investor some protection. High risk is inherent in high yield bonds. Nevertheless, your portfolio may well have a place for some of these securities if you are not risk-averse. By having junk bond markets, it would in fact signify deepening and maturing of Indian debt markets. In India, companies are hamstrung by the fact that investment relaxations may come in only when the debt markets get deeper, so that insurance companies can increase their portfolio yield without exposing themselves to risk for long tenures by investing in junk bonds.

5.2.2. Impact of Junk Bonds on Indian Economy

A well-functioning corporate bond market allows firms to tailor their assets and liability profiles. If companies fear they will not be able to raise long-term resources, they are likely to stay away from long-term investments or entrepreneurial ventures that have a long term payoff. In the long run, this can affect economic growth. The



corporate bond and the junk bond market could fill this vacuum. In the absence of a corporate bond market, a large part of debt funding comes from banks. In the process, banks assume a significant amount of risk due to maturity mismatch between short-term deposits that can be readily withdrawn and relatively long-term illiquid loan assets resulting in high NPAs.

An active and efficient bond market gives companies an alternative means of raising debt capital in the event of a credit crunch. It also leads to better pricing of credit risk (since expectations of all market participants are incorporated into bond prices). FIIs are major players in the equities market. However, thanks to the ceiling on their investment in the debt market (currently, there is a cumulative sub-ceiling of \$0.5 billion on investment in corporate debt), they are present only in a limited way in the bond market.

5. 6. Pension Funds and Retirement Schemes: 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, and 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.

5.6.1. Recent Government Initiatives and Pension Fund Reform

Two parallel sets of initiatives have been taken during the last 4-5 years. The first initiative was for the organized sector and the second initiative was for the unorganized sector. OASIS (Old Age Social and Income Security) project was commissioned by the Ministry of Social Justice and Empowerment, which submitted its report in January 2000. OASIS report recommended a scheme based on Individual Retirement Accounts (IRAs) to be opened anywhere in India. Banks, Post Offices etc., were identified to serve as "Points of Presence" (POPs) where the accounts could be opened or contributions deposited. Their electronic interconnectivity would ensure "portability" as the worker moves from one place/employment to another. There would be a depository for Centralized record keeping, fund managers to manage the funds and annuity providers to provide the benefit after the age of 60. The OASIS report brought forth important reforms in the field of pension fund investments and paved the way for later initiatives like the announcement of the New Pension System in the Budget of 2003-04, which got introduced on 1 January 2007.

6. Scope of Development

6.1. The New Pension System (NPS)

The New Pension System (NPS) is a pension system that is intended to initially cater to newly recruited Central Government employees (except the armed forces) and to workers in the unorganized sector. Even within unorganized sector, the NPS will cater



to only workers who are taxpayers and can be motivated to join the scheme through tax incentives. As with Government employees, they can ask for investment protection guarantees on investments under various pension schemes offered by Pension Funds. However, this guarantee would be implemented using private financial markets. Persons being covered by schemes offered by the EPFO and other provisions administered under any statutes would not be covered under this NPS scheme. Thus, no existing arrangement of pension provision applicable to already existing persons are proposed to be changed, only new/additional persons are going to avail the benefit of the NPS. Although the NPS has started with covering Central Government employees who joined service after 1 January 2007, State Governments are likely to join this NPS scheme going forward. In due course, private sector employees too may join the NPS scheme.

The uniqueness of the NPS is two-fold:

- ❖ It creates a system where both the Government employees as well as workers in the unorganized sector are covered by one scheme and supervised by one regulator and
- ❖ The choice about fund managers or about different schemes of a fund manager can be exercised independent of the fund manager through the mechanism of the Central Record-keeping Agency (CRA).

7. Mutual Funds

Mutual funds are supposed to be the best mode of investment in the capital market since they are very cost beneficial and simple, and do not require an investor to figure out which

securities to invest into. A mutual fund could simply be described as a financial medium used by a group of investors to increase their money with a predetermined investment.

The responsibility for investing the pooled money into specific investment channels lies with the fund manager of said mutual fund. Therefore investment in a mutual fund means that the investor has bought the shares of the mutual fund and has become a shareholder of that fund. Diversification of investment Investors are able to purchase securities with much lower trading costs by pooling money together in a mutual fund rather than try to do it on their own. However the biggest advantage that mutual funds offer is diversification which allows the investor to spread out his money across a wide spectrum of investments. Therefore when one investment is not doing well, another may be doing taking off, thereby balancing the risk to profit ratio and considerably covering the overall investment. The best form of diversification is to invest in multiple securities rather than in just one security. Mutual funds are set up with the precise objective of investing in multiple securities that can run into hundreds. It could take weeks for an investor to investigate on this kind of scale, but with investment in mutual funds all this could be done in a matter of hours.

8. Scope of Innovation in Mutual Funds

8.1 Investing in International Markets

In 2007 RBI increased the limits of international investments for individuals from \$50,000 to \$100,000 and for Mutual funds from 3 billion to 4



billion dollars. This has made a lot of mutual funds have offered product to Indian customers that invest abroad. Performance of some of those products is:

Though some of these funds give better returns than normal domestic equity and provide better diversification but still people are reluctant in investing abroad due to following reasons:

8.1.1 Change in Exchange Rates

When the exchange rate between the foreign currency of an international investment and the Indian Rupee changes, it can increase or reduce your investment return. Due to this reason it gets more complicated and risky for people not only their investment should be in right stock/fund the foreign exchange rate should also work in their favour.

8.1.2. Political Social and Economic Events

It is difficult for investors to understand all the political, social and economic factors that influence foreign markets. These factors provide diversification, but they also contribute to the risk of international investing.

8.1.3. Cost of Investment

International investing can be more expensive than investing in Indian companies. In smaller markets, you may have to pay a premium to purchase shares of some popular companies. Transaction costs such as fees, broker's commissions, and taxes often are higher than in Indian markets. Mutual funds that invest abroad often have higher fees and expenses than funds that invest in Indian stocks, in part because of the extra expense of trading in foreign markets.

8.1.4. Reliance on Foreign Legal Remedies

If you have a problem with your investment, you may not be able to sue the company in India. You may have to rely on whatever legal remedies are available in the company's home country.

9. Derivatives in India

The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with the launch of index futures on June 12, 2000. The futures contracts are based on the popular benchmark S&P CNX Nifty Index. The Exchange introduced trading in Index Options (also based on Nifty) on June 4, 2001. NSE also became the first exchange to launch trading in options on individual securities from July 2, 2001. Futures on individual securities were introduced on November 9, 2001. Futures and Options on individual securities are available on 179 securities stipulated by SEBI.

10. Scope of Innovation in Futures Market

10.1. 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.

10.2. Carbon Emission Index and Futures

We all know one issue that is troubling the whole world is global warming and climatic changes. The adverse effects of global warming on the Indian subcontinent vary from low-lying islands and coastal lands to the melting of glaciers in the Himalayas, threatening the huge flow rate of many of the most important rivers of India and South Asia. In India, such effects are projected to impact billions of lives. As a result of increased carbon emissions, the climate of India has become increasingly volatile over the past several decades; this trend is expected to continue. Another consideration in this aspect is every country doesn't want to take responsibility for contributing to Global Warming. One of the steps in this context is forming an Index for Carbon Emission which measures the carbon emission of each country based on the preset parameters. Now on that index there can be Future contract which can just book the level of index based on which the premium and all should be decided. An interesting fact to notice here is that the value of contract will be directly measured by the central authority formed for this purpose. Another important guideline for measuring the emission is Industrial Production Index (IPI).

10.3. 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 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.

10.3.1. Weather Derivatives in India

India is a country where still agriculture is the major source of income for majority of the population. Agriculture and the related industries support around 60% of Indian population. According to the economic survey agriculture contributes more than 25% of the total GDP of India. But the Indian agriculture performance is still dependent heavily on the south west monsoons. Every year a lot of crops get destroyed because of floods or draught. But it still doesn't have an efficient irrigation system to support its farmers. The south west monsoon is very important to the agriculture performance of India. Hence Weather Derivatives have a good scope and it is most likely that weather derivatives in India should have the monsoon or rainfall as their underlying.

Weather instrument trading in India has a long way to go. Until and unless the regulatory bodies allow trading on



intangibles such as rain in financial markets, weather trading will be a dream. Even if the bill is passed and weather instruments are traded on the exchange a very strong infrastructure is required so as to have a far reaching effect. Farmers from each and every part of the country should be able to hedge of their risks. This can be done with proper programs through the local Gram Panchayats and e-choupals. Farmers and traders should be given exposure and educated properly about the benefits of weather trading.

10.4. The 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.

10.5. The 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.

10.6. 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.

10.7. Collateralized Debt Obligations (CDOs)

CDOs are specialized repackaged offerings that typically involve a large portfolio of credits. Both involve issuance of debt by a SPV based on collateral of underlying credit(s). The essential difference between a repackaging programme and a CDO is that while a simple repackaging usually delivers the entire risk inherent in the underlying collateral (securities and derivatives) to the investor, a CDO involves a horizontal splitting of that risk and categorizing investors into senior class debt, mezzanine classes and a junior debt. CDO may be subject to local debt registration / regulatory requirements.

11. Conclusion: Financial innovation is truly welfare enhancing if it brings about a reduction in the cost of capital and improvement in the financial intermediation process without a commensurate increase in financial risk. The benefits of emerging capital markets can be measured in terms of factors such as lower pricing , reduced cost of capital, mitigated risk exposures, broader access to capital and increased liquidity. Financial innovation ought to



make the movement of capital more efficient, risk management more targeted, hedging better matched, and trading less costly. Financial innovation also ought to contribute to better management and transfer of credit risk, the unbundling and trenching of risk, improved liquidity, more optimal portfolio diversification, and broadened credit risk dispersion.

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