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**Channelling household savings
to productive uses through
the capital markets**



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1. Introduction

Savings provides the means for investments. Typically, investments are primarily funded through domestic savings and the rest through foreign capital inflows. Domestic savings are from three sources -- households, private and public sector. Household savings form the largest part of total savings. As domestic savings contributes the most to capital formation, it can also be a limiting factor to investments.

The paper deals with changing pattern of Household savings, its shift away from capital (financial) markets towards unproductive assets like gold and possibilities of channelization household savings to investment rather than speculative assets. The paper looks at the current policy incentives in terms of tax to boost capital market investment and whether it has served the purpose of long term capital formation. The current savings environment indicates a high proportion being in physical rather than financial assets. Within financial assets derivatives are preferred over the cash equity.

We propose that an investment of incentive structure should support a pyramid where the small investors would hold maximum in the less risky assets and reduce the holdings as they move towards risky assets. Our paper is organized as, section (2) studies trends in current macro-economic scenario in terms of the savings; section (3), deals with, the capital formation and share of capital markets in terms of raising new capital. In section (4), we look at the current investment pattern in Indian capital markets and the incentives provides to boost trading in the equity and derivative products. Section (5) we give our proposal on the layered approach to investment architecture. Finally, section (6) concludes the paper.

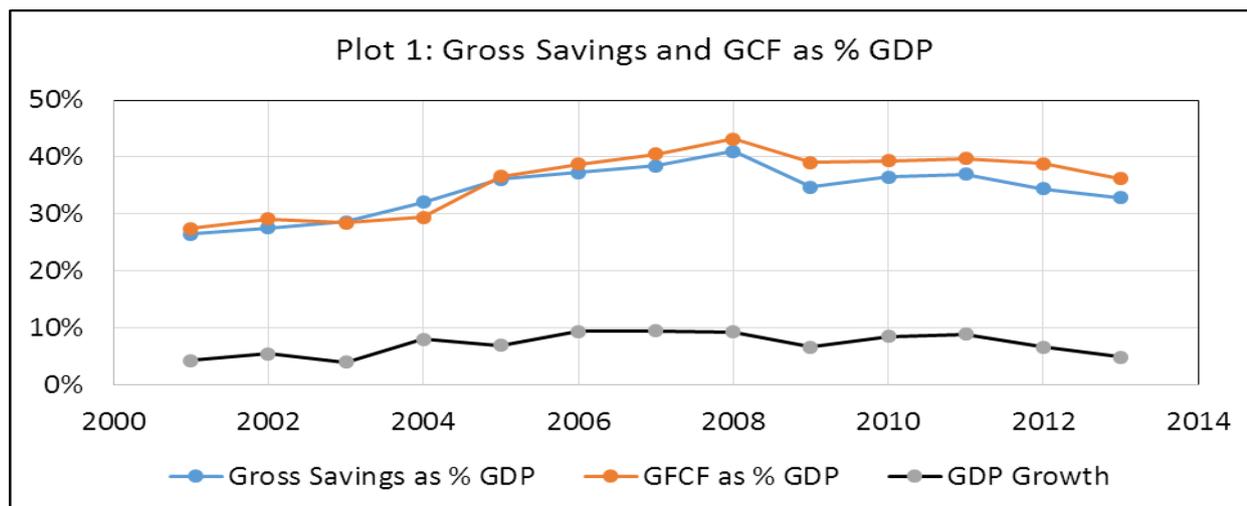
2. Savings pattern in Indian economy

Investment is the key driver of Growth of any economy. From 1950's, India's saving rate has increased from 10 percent of GDP to 32 percent of GDP; this increase in saving has transmitted into higher investment and higher growth rate.

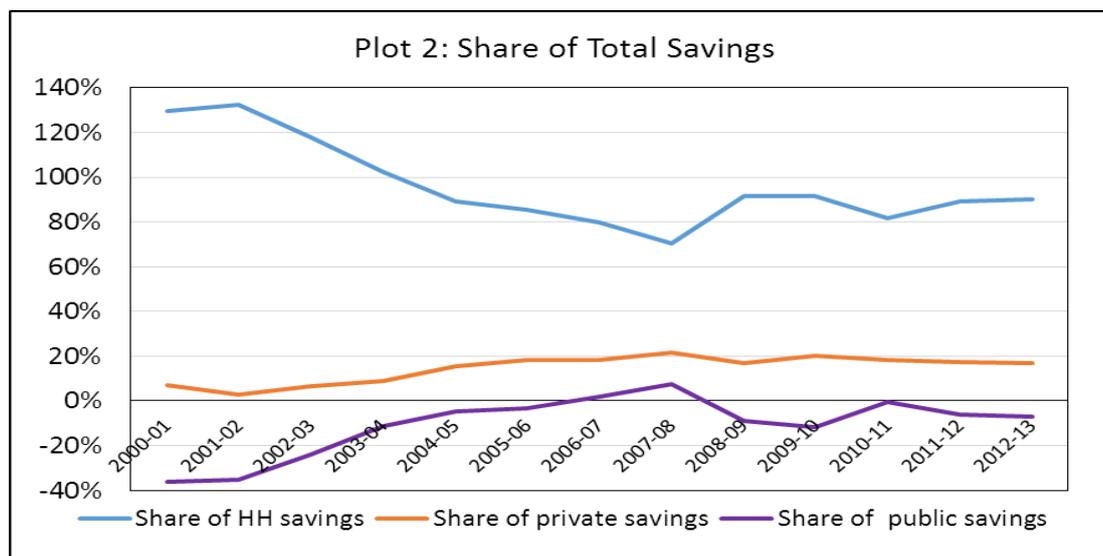
Rao (1980)'said that, "increase in saving, use of increased saving for increased capital formation, use of increased capital formation for increased saving for a further increase in capital formation constituted the strategy behind economic: growth. This process of increased capital formation leading to increased saving and increased saving leading to increased capital formation will continue till saving, capital formation and income reach desired levels after which saving and capital formation gets stabilised and there would be a steady and self-sustaining increase in national income."

India's saving trend in last 12 years has increased from 26 percent of GDP to 33 percent of GDP and reached a peak of 41 percent during the boom year 2007-08.

Similarly investment increased from 28 percent in 2000-01 to 36 percent in year 2012-13. Gap between investment and savings comes through foreign capital (FDI, FII, ECB etc). FII inflows also increased from 2000-01 to 2012-13. Figure(1) shows Savings rate, Gross Fixed Capital formation rate as a percentage of GDP and the GDP Growth rate from 2000-01 to 2012-13. It can be observed that saving and investment as a percentage of GDP and GDP Growth has been declining since 2007-08.

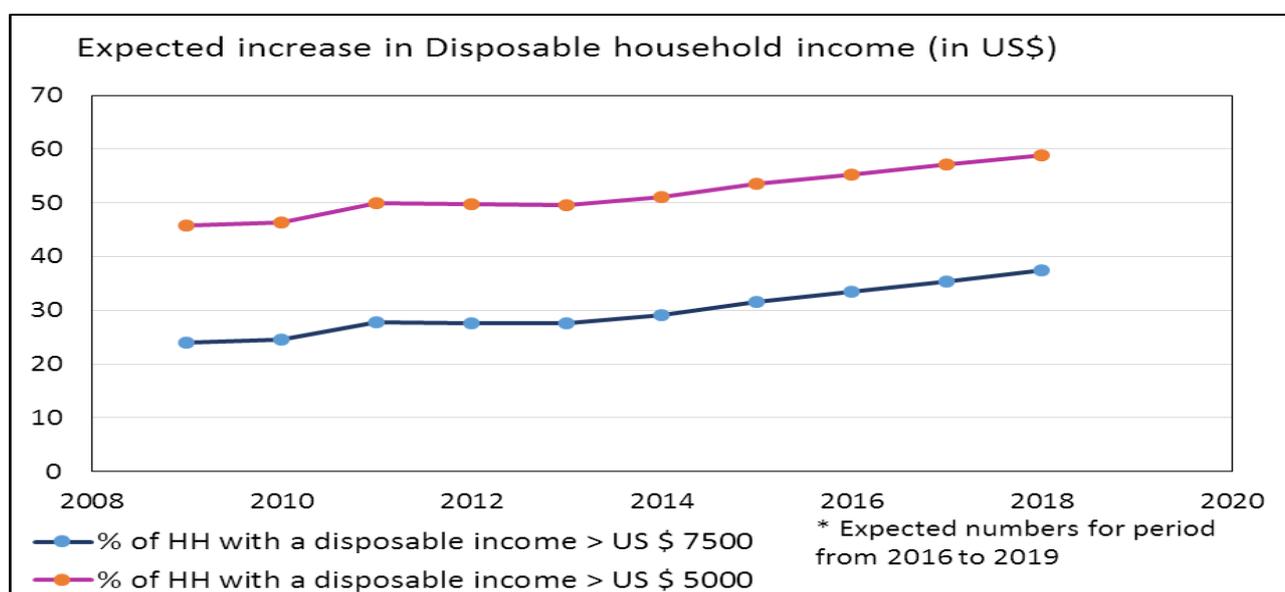


In India, savings come from three sources- Household savings, Public and Private savings. Figure (2) shows the composition of total savings under these three sectors, namely, household, private corporate and government. Household sector has a maximum share in Gross total savings while the public sector savings has the minimum and even negative share in last five consecutive years. Thus Household sector saving is the driving force of investment and has to be effectively mobilised for productive investment in the economy.

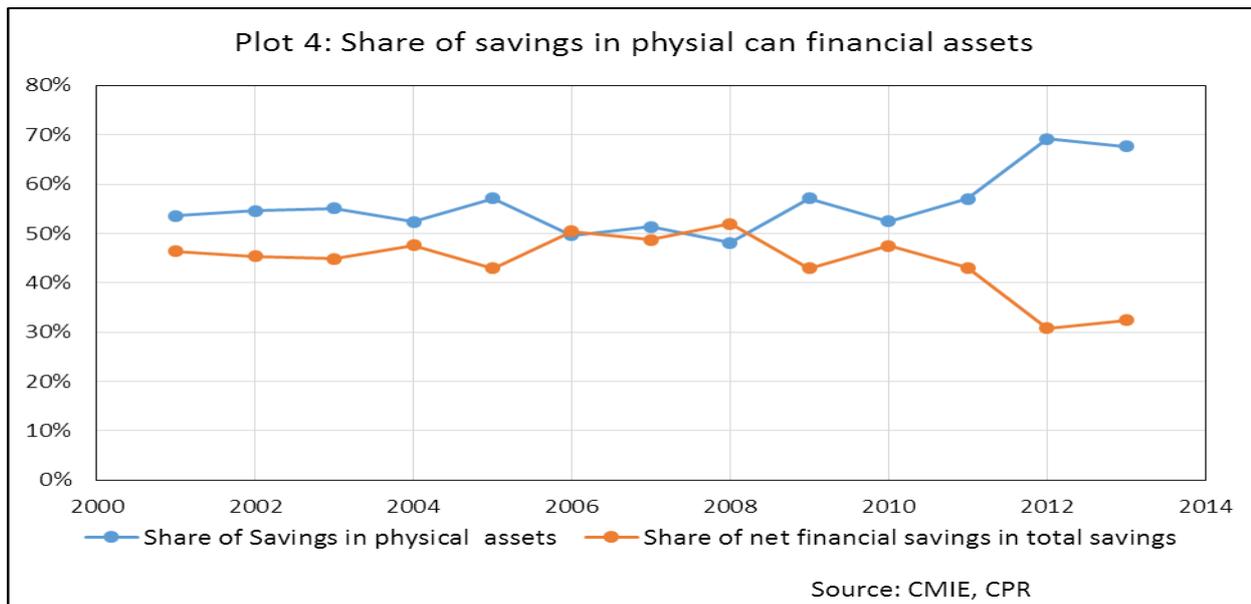


The System of National Accounts, 1993 (SNA93) (paragraph 9.19) defines saving as, 'Saving represents that part of disposable income that is not spent on final consumption of goods and services. It may be positive or negative depending on whether disposable income exceeds final consumption expenditure, or vice versa.' Disposable income is the Source of household savings. Figure 3 shows that percentage of people having higher disposable income has been increasing in India and thus ability to save is also increasing. Rao (1980) says that savings in India increased in spite of increase in number of people living poverty line and higher income to rich people is the source of higher savings of the economy. Thus larger share of people with higher disposable income is driving into higher savings of the economy and also shows higher potential of household savings of the economy.

Figure 3: Expected increase in Disposable household income
(source: Bloomberg)



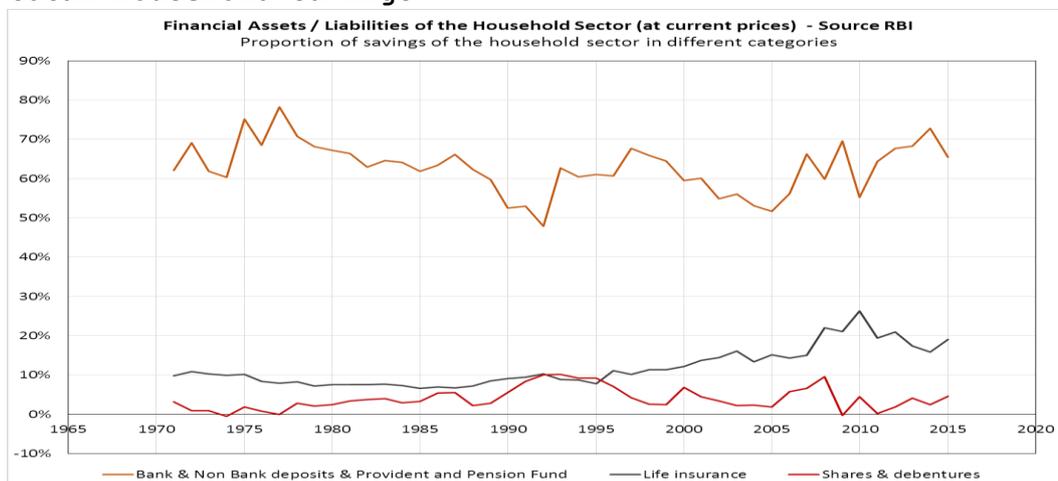
Household sector saves either in the form of financial assets in form of currency, net deposits with banks, net claims on government, investment in shares and debentures, life insurance funds, and provident and pension funds or physical savings in the form of real estate, gold etc. Figure (4) shows that share of physical savings increased from 54 percent in 2000-01 to 68 percent in year 2012-13. It also shows that share of financial savings have declined significantly in last 15 years. Household savings through bank deposits, small saving schemes, mutual funds, equity market, Insurance and corporate bonds gets channelled to private and public enterprises that are then used for investments. Physical assets are created by credit; there would be corresponding liabilities which would reduce the net savings accruing to the household sector.



Declining share of financial savings in the Gross Total savings signifies that India lags behind in mobilising savings to their first best investment choice.

Figure (5) represents share of Household savings into physical savings (consisting of gold and real estate), net deposits and share and debentures. It shows that while proportion of physical savings has been tremendously increasing, proportion in shares and debentures is less than 10 percent and further declines to less than 5 percent. Over this long period of 25 years, with the growth in income levels even with various market development initiatives and incentives we find that the household savings in capital market is the least and this is attributable to the risk averse nature.

Figure 5: Share of share/debentures, net deposits and physical savings in total household savings



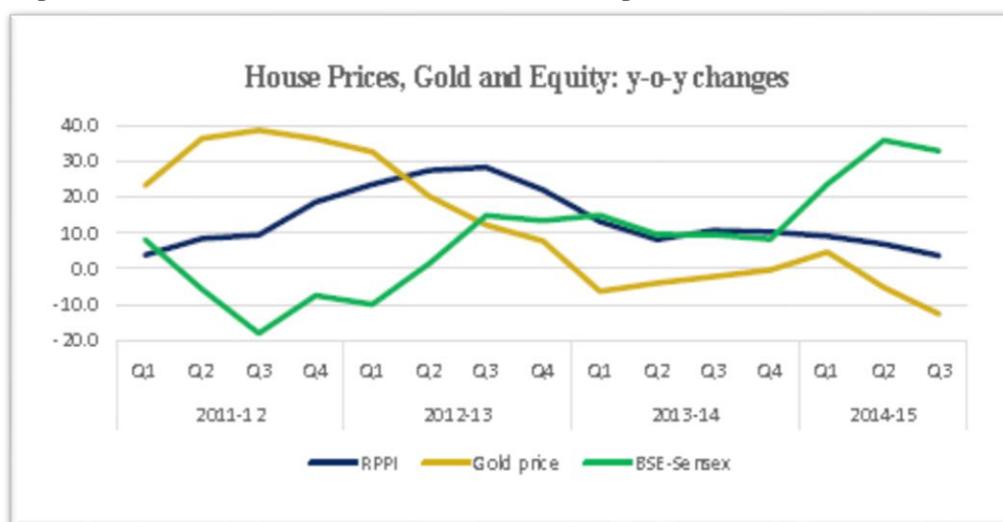
Pandit (1985)¹ finds that the volume of financial saving determines the demand for financial assets. Given the volume of saving, the household decides about its allocation among competing assets, depending on

- a) Availability of various assets
- b) Their respective rates of return and
- c) The rate of return on physical assets.

Figure (6) shows that till June 2012 and January 2013, gold and real estate investment had higher returns than Sensex and this explains the higher share of physical investment than financial investment. A recent RBI study (May 2015) indicates that since 2001, for every additional Rs.100 gross domestic product (GDP), a mere Rs. 1.50 was invested in the capital markets by savers while Rs.8 was spent in buying gold and Rs.18 went to savings bank deposits.

People Research on India's Consumer Economy (PRICE) survey finds that irrespective of the income level, buying gold for gifting purpose is the most important demand driver for purchase of gold. Moreover, one in every 10 Indian households purchase gold annually or more frequently.

Figure (6): Return on real estate, gold and Sensex.



Note: RPPI- Residential Property Price Index

Source: RBI Occasional papers (May, 2015)

"A combination of negative interest rates (adjusted for inflation) and a boom in real estate and gold induced savers to increase investments in property and gold and cut down on their exposure to bank deposits and equity markets. This choked the flow of funds to banks and the capital

¹ Pandit, B.L. (1985), op cit., p.89.

market, making it tough for firms to raise capital,” says Devendra Pant, head economist at India Ratings. Correcting this skew will be crucial in reviving the corporate capital expenditure cycle, he says.

3. Capital Formation

Growth models are based on underlying assumption that savings translates into investment but in developing and emerging economies, Savings do not automatically results into investment and production of capital goods. Investment is the creation of capital or the net addition to capital stock. It is usually measured by Gross Capital Formation (GCF). As per the definition of the Central Statistical Organisation (CSO), GCF has two components, that is, Gross Fixed Capital Formation (GFCF) and change in stocks. The GFCF represents the gross value of goods which is added to the fixed domestic capital stock during a year. For instance, the GFCF comprises buildings, other construction, machinery and equipment. Each of these is classified further under new outlays, renewals and replacements. In other words, GFCF consists of outlays of industries, addition of commodities to their stocks of fixed assets less their net sales of similar second hand and scrapped goods. The change in stock is the difference between market values of the stocks at the beginning and end of the period. It represents the value of the physical change in raw materials, work in progress (other than the work in progress on buildings which are included in fixed capital formation) and finished products that are held by commercial enterprises and households (Government of India: 1989). However, the change in stocks or the inventory investment is more unpredictable by nature. Hence, most of the studies measure private investment in terms of Gross Fixed Capital Formation.

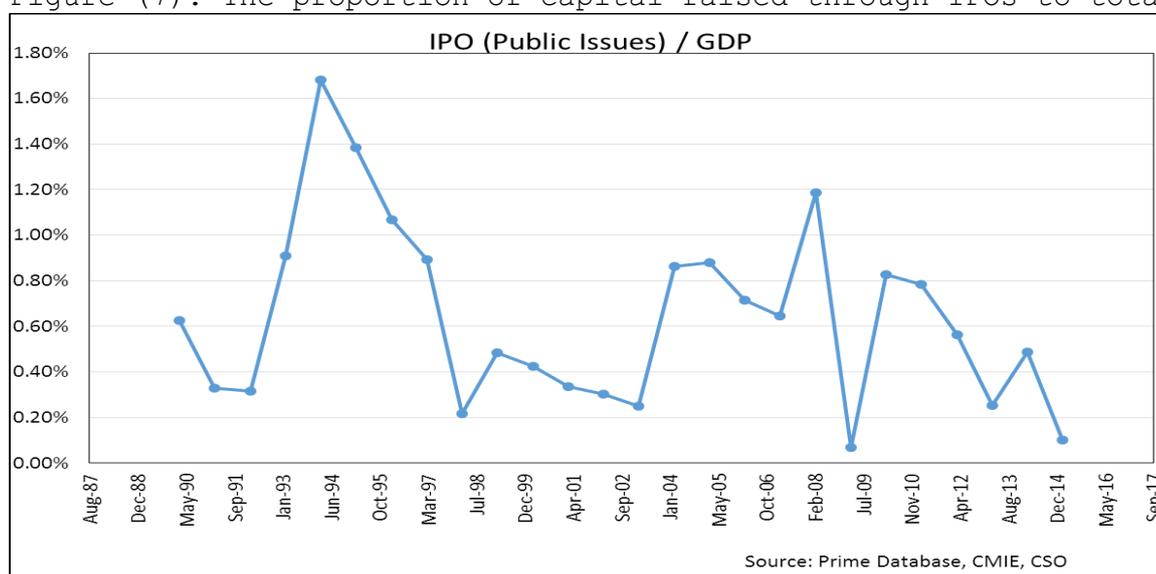
Although capital formation has increased in India since independence to 43% of GDP in year 2007-08 but it is declining since then to 36 percent of GDP in 2012-13 and it still remains below rates achieved in high-growth economies, such as China. Moreover ICOR (Incremental output capital ratio) in India is still high (4.0 -4.6) which results in lower transmission of Capital formation to Growth. There are four main sources of corporate finance- reinvesting profits in the corporation, borrowing through a bond issue, equity and private equity and venture capital.

Investments in new projects by the corporate sector plummeted 27 per cent during the fiscal ended March 2015. A Reserve Bank of India (RBI) study on corporate investments estimates that a total capital expenditure of Rs 1,93,300 crore (including bank finance, IPOs and GDR issues) would have been incurred by the companies in 2014-15, reflecting a reduction of 27 per cent over the previous year. Also, capex by India Inc has been falling steadily over the last four years. From Rs 3,68,100 crore in 2011-12,

investments plunged to Rs 3,05,000 crore in 2012-13, Rs 2,64,800 crore in 2013-14 and Rs 1,93,300 crore in 2014-15.

In particular, if we look at the capital formation through equity market in India, as indicated in figure (7) below capital raised through new IPOs is not even 1% of the GDP. In fact, it has been falling over the period. This is the case inspite of the fact that number of listed companies have doubled from 1992-93 to 2014-15 and market capitalisation of all listed companies shows increase of 60 percent from 1992-92 to 2014-15. It indicates the extent of under-utilization in the gross capital formation.

Figure (7): The proportion of capital raised through IPOs to total GDP



4. Savings / Investments through capital markets

The Indian capital markets provide a platform to generate capital for investment, growth and hedging purpose. It includes both the primary and secondary markets. The market capitalization of listed companies on BSE form about 80% of GDP as of 2015. Over the past two decades, there was a rise in the cash turnover of both BSE and NSE. The rate of increase in the equity cash turnover was however, outpaced by that of the equity derivatives segment in both exchanges which were introduced in India in 2000. The difference between STT on derivatives and cash markets makes Indian Derivatives market about 16 time the cash market, highest in the world after South Korea. Domestic retail investors and proprietary traders account for 87% of all derivatives trading in India. The notional value of such trading touched \$1.3 trillion in 2014-15, from just \$40 billion a decade ago. With the exchanges providing these two major verticals in the equity category, the investors now have a choice of assets and

their investment decisions were driven by the cost of trading (tax) and the size of contract in each market.

We look at these two decision making factors and report the effect of tax changes and contract size change in market behaviour.

Tax in Securities Markets: Long Term Capital Gains tax (LTCG)

In case of an investor who is trading in securities and is not in the main line of business, the gains or losses from these transactions are taxed under the head of "Income from capital gains". If the holding period is less than 1 year, gains are classified as STCG and if the holding period is equal to or greater than 1 year, gains are classified as LTCG. Any equity share, which has been sold through a recognised stock exchange and on which STT has been paid, is entitled to exemption from LTCG under Section 10 (38) of the Act. Securities Transaction Tax (STT) is not applicable on off-market transactions or on commodity or currency transactions. STT was originally introduced in 2004 by the then Finance Minister, P. Chidambaram to stop tax avoidance of capital gains tax. Securities Transaction Tax is a direct tax levied and collected by the union Government of India.

Over the recent years, it has been noted by the exchanges and the regulator that there was a major misuse of the exchange platform to evade tax in given LTCG-STT tax structure. The modus operandi involved making a preferential allotment to a set of known entities. Such shares are locked-in for a period of one year if allotted to non-promoters. During the period of lock-in, the share prices of the companies are pushed up on low volumes. Upon the securities being free of lock-in, entities sell off the same through the stock exchanges by paying the small amount of securities transaction tax (STT) and get the full benefit of exemption from LTCG tax.

Media reports indicated that the income tax department has searched at least 15 individuals and unearthed undisclosed income of Rs 100 crore in connection with alleged misuse of the stock exchange system to launder unaccounted money. In Dec, 2014, the Securities and Exchange Board of India first barred 260 entities, including individuals and companies, for misusing exchanges to generate fictitious long-term capital gains (LTCG) to convert their unaccounted income into white without paying taxes. [16 April 2015, Indian Express]

Tax in Securities Markets: Securities transaction tax (STT)

In India, the Securities transaction tax (STT) levied on equities and the corresponding equity derivatives are very different. The rate for derivatives has been kept at very low levels with the purpose to provide an incentive to attract more investors to this segment. [Insert Table 1 here].

Table 1: STT rates on different instruments since its introduction

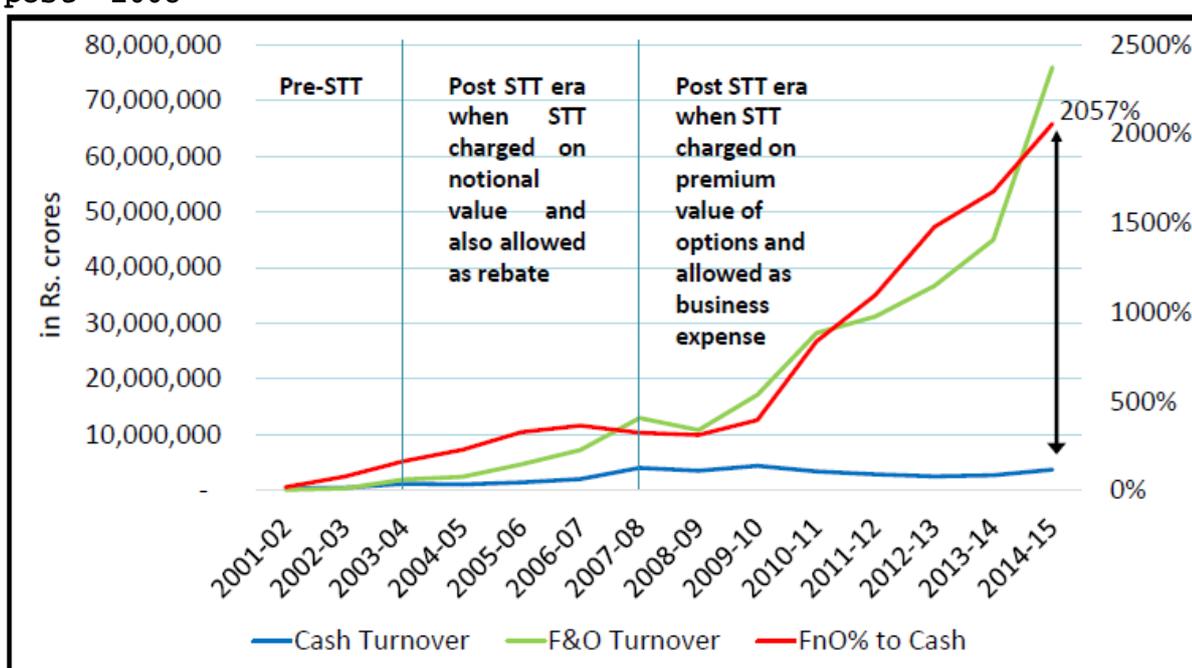
Date	Cash Deliverable (Buy and sell)	Cash Non Deliverable (sell)	Equity Futures (sell)	Options Premium (sell)	Exercised options
1-Oct-2004	0.075	0.015	0.01	NA	0.01
1-Jun-2005	0.1	0.02	0.0133	NA	0.0133
1-Jun-2006	0.125	0.025	0.017	NA	0.017
1-Jun-2008	0.125	0.025	0.017	0.017	0.125
1-Jun-2013	0.1	0.025	0.017	0.125	0.01

(Numbers in %)

For the period from 2004-2008, the STT for options was levied on the aggregate of the notional value of the transaction and the premium. However, after 2008, the STT was applied to only the premium value for the seller. The buyer is required to pay a tax on the settlement price only if the option is exercised. Shifting to STT provided an attractive investment proposition from tax perspective to increase investment in the equity (secondary) markets as compared to other non-equity investments.

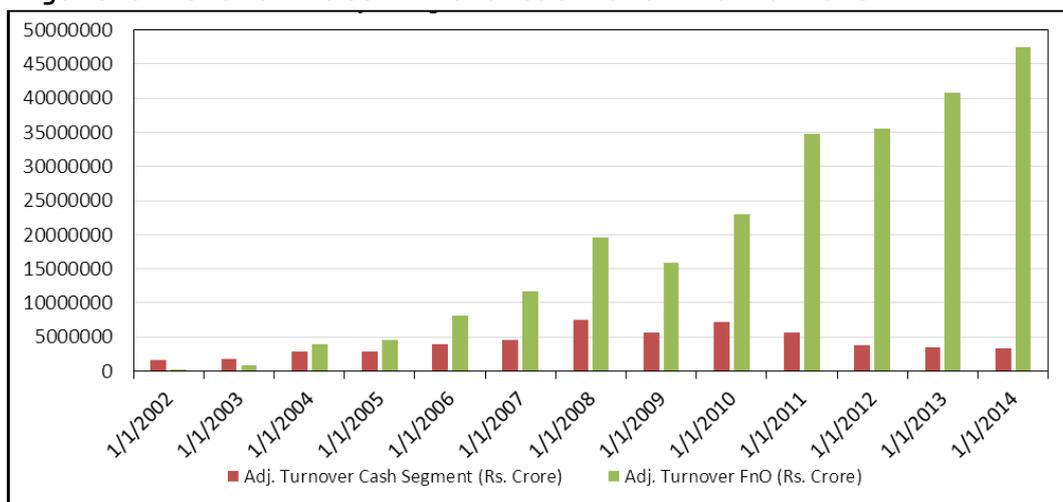
Figure 8 shows the impact of STT on cash market turnover and FnO turnover (for stocks on which stock options and stock futures were available). The graph clearly indicates a preference to trade on derivatives market as opposed to the cash market. Speculative trading in derivatives preferred over capital investment in cash equity.

Figure 8: Equity Cash market turnover and Equity FnO turnover pre- and post- 2008



There has been a significant increase in the volumes and turnover in the F&O segment as compared to those in the equity cash segment. Figure 9 indicates the extent of rise in turnover in the two verticals, which are now competing for same resources. These numbers are adjusted for inflation (taking WPI, base 2004-05) to make the series comparable to the latest value available.

Figure 9: Growth rate in the Cash and FnO Turnover



It is seen that post-STT there has been an exponential increase in the turnover in derivatives segment. The lower rate of tax for derivatives seems to be providing the incentive for excessive trading in derivatives markets. Table 2 which gives the turnover ratio² is an important indicator of liquidity in the securities market. This clearly indicates that in the post STT period, cash segment equities turnover has declined over time for both the exchanges and the derivatives turnover has increased over the years. [Insert Table 2 here].

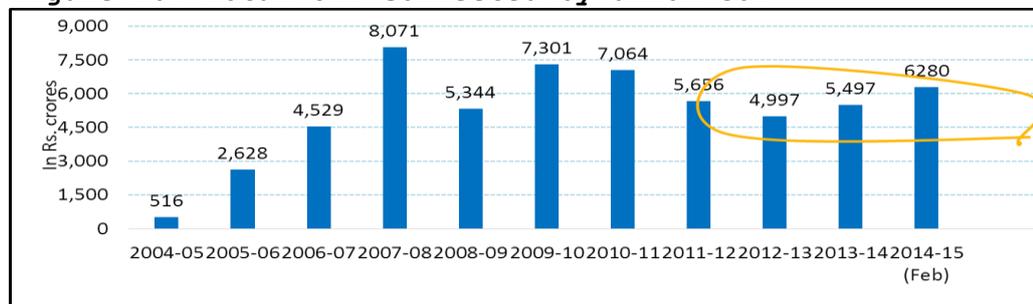
² Turnover ratio = turnover / market capitalization

Table 2: Turnover Ratio

Year	BSE Mcap/GDP	NSE Mcap/GDP	Turnover ratio - BSE	Turnover Ratio-NSE	Traded Value Ratio - BSE	Traded Value Ratio - NSE
2000-01	27.4	31.5	175	203.6	47.9	64.1
2001-02	26.9	28	50.2	80.6	13.5	22.6
2002-03	23.2	21.8	54.9	115.1	12.7	25.1
2003-04	43.5	40.6	41.9	98.1	18.2	39.8
2004-05	52.4	48.9	30.5	71.9	16	35.2
2005-06	81.8	76.2	27	55.8	22.1	42.5
2006-07	82.6	78.4	27	57.8	22.3	45.3
2007-08	103	97.4	30.7	73.1	31.7	71.2
2008-09	55.3	51.9	35.6	95	19.7	49.3
2009-10	94.1	91.7	22.4	68.9	21	63.2
2010-11	94.1	92.2	16.2	53.4	15.2	49.2
2011-12	70.4	69	10.7	46.1	7.6	31.8
2012-13	68.8	67.2	8.6	43.4	5.9	29.2
2013-14	74.7	73.4	7	38.6	5.3	28.3
2014-15	92.3	90.1	6.3	32.9	5.8	29.6

Source : BSE , NSE and CSO , SEBI

The figure 10, indicates the total STT collected over the years. As discussed above while the overall turnover in equity markets (including both cash and derivatives) has been increasing, the contribution to exchequer by way of STT has been falling. This can be attributed to the fact that volumes have shifted from capital investment activities in cash market has shifted to speculative trading in derivatives.

Figure 10: Total STT collected by union GOI

Equity derivatives are highly leveraged and have lower tax than equity cash market. This is responsible for spurring the migration of volumes from higher taxed segments (cash) to the one that has a lower tax rate (derivatives).

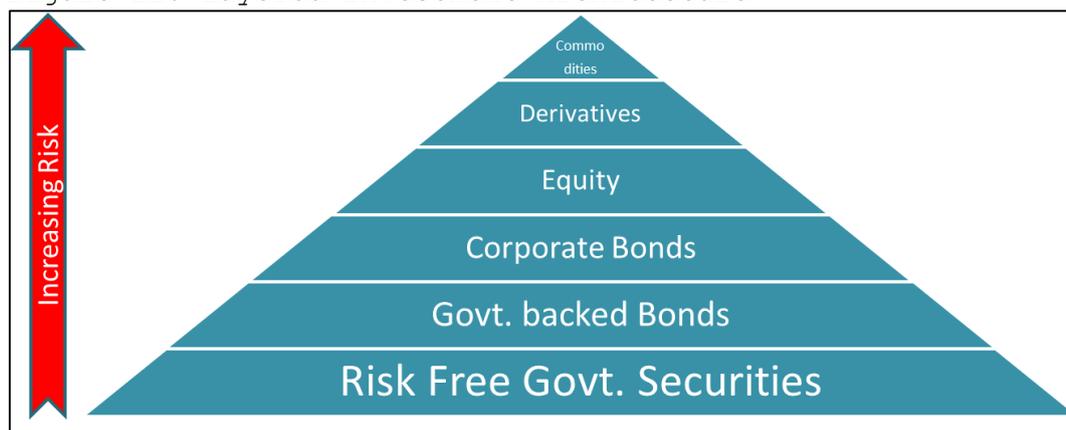
5. New Alternate Savings and Investment Opportunities

As shown earlier, the household savings have been moving into unproductive physical assets such as gold and real estate. In order to address this problem the Government of India introduced Gold bonds, made available through banks and post-offices in early Nov 2015. The objective of the scheme is to mobilize a part of an estimated 20,000 tonnes of gold held by households and institutions in the country and to reduce India's reliance on the import of gold. The Gold bonds have raised Rs. 246 crore of investment through 63000 applications. Give the size of the Indian economy this still leaves a great scope for further increase in market depth and hence raising capital.

6. Investment Pyramid

The traditional principals of finance have indicated a positive correlation between risk-return. Higher the risk, higher would be the expected return. For the risk-averse individual then the expected investment structure should follow the pyramid as shown in figure (11). A major share of her investments would be in the fixed deposits or risk-free Government securities. As we go up the indicated ladder, the next level of investments are corporate bonds, equity and finally derivatives, commodities.

Figure 11: Layered Investment Architecture



What is observed however is that a majority of household savings are physical assets like gold or real estate and the second best in the fixed deposits. Both these are illiquid but still preferred as they give assured returns. Markets for low risk instruments such as GoI securities, Govt backed bonds, corporate bonds is not available for retail investors. For the rest of the small investor base who do operate in financial markets, ie. equity markets, the policy incentives such as low tax and contract size, lead to increase in the holding of high risky assets such as

derivatives as compared to that of equity. Thus creating an inverted pyramid.

7. Conclusion

The aim of this study is to highlight the current savings structure of the Indian households, how can that be channelled to efficient use through the Capital markets. It is proposed to increase the scope of capital market to provide all investment products for a wide variety of risk so that a liquid market is offered for products with very low to very high risk categories.

The issues such as tax evasion and growth in trading of highly risky instruments is seen as a results of certain policy incentives provided in terms of the tax on trading activities. It is proposed to rationalize the tax structure to prevent tax evasion and also increase in speculative trading in markets.

Finally, we propose that measures are taken to provide a market structure that stimulates growth in financial savings in the form as given in the proposed investment pyramid. Policy measures should encourage creation of liquid markets for trading the instruments in the wide range of risk categories from least risky government securities to high risk derivatives.

8. Recommendations

Based on the market micro-structure and the incentives in place today to boost trading in various financial products we would like to propose some of the below recommendations:

- Extend capital gains exemption limit to 3 years instead of current 1 year to begin with and take it to 5 years. This will eliminate tax evasion using stock exchanges.
- Rationalize STT to promote investments activity. Current STT structure disincentivises delivery based transactions akin to investment activities by charging too much tax on delivery and extremely low STT on options.
- Increase the lot size in derivatives to reduce Mis-selling to small investors. Current lot size of Rs 5 lakhs in equities and Rs 65,000 in currency need to be taken to at least 50 lakh rupees to ensure institutions participate in the derivatives market and small investors without any training do not participate in such markets. This way, they will have to go to underlying spot market and will learn to invest. Current easy and very high leverage using derivatives is luring small investors to lose their money and become disappointed with entire capital markets.

- Promote delivery based derivatives instead of current cash settled derivatives to bring derivatives market closer to real markets.
- Provide tax incentives for people to invest in IPO Rights issues and Offer for sale of equities of small companies below Rs.1000 cr market capitalisation. They can invest up to Rs.1 lakh per annum for holding to minimum 3 years to promote entrepreneurial activities and long term funding to small companies. If 50% of the current tax payers which works out to 2 crore tax payers- each invest Rs.1 lakhs each for getting benefits of tax exemption, it will bring Rs.2 lakh crore or close to USD 30 billion directly to be given to small companies. This will serve the purpose of promoting entrepreneurial culture and allow participation by small investors in equities of the companies. A safety net has to be provided to these investors to ensure they don't lose their capital in most cases. It will help create huge number of jobs which will bring additional direct and indirect taxes to government.
- Government should follow prudent policies to curb gold demand in the Country, reward financial savings and punish savings in land, real estate and bullion by ending or restricting the tax break to the housing sector.
- Allow retail investors to subscribe to government bonds in an easy to subscribe to and easy to hold in depository mode framework to improve market penetration. People need risk free instruments. Currently they are using PSU banks as proxy to government. Whenever government backed bonds come up in retail, there is a huge appetite. This will enhance the trust of people in financial markets and bring more people to invest in Indian markets. This will also reduce the dependence of government of India on banks as vehicles for fund raising directly, through special purpose vehicles and public sector units.

Reference

Sanjib Bordoloi.p65 - 41-Saving and Capital Formation in India - Some Exploration.pdf.” 2015.

Guru, Supriya. 2015. “How Capital Formation of a Country Is Determined? – Explained!”

Rakshit, Mihir. 1982. “Income, Saving and Capital Formation in India: A Step towards a Solution of the Saving-Investment Puzzle.” *Economic and Political Weekly* 17 (14/16): 561–72.

Rao, V. K. R. V. 1980. “Savings, Capital Formation and National Income.” *Economic and Political Weekly* 15 (22): 965–77.

“Public Sector In National Measures Of Savings And Capital Formation.pdf.” 2015.

http://www.nipfp.org.in/media/pdf/books/BK_22/Chapters/9.%20Public%20Sector%20In%20National%20Measures%20Of%20Savings%20And%20Capital%20Formation.pdf.

RBI Occasional papers (May 2015, “ Recent Trends in residential property prices in India: an exploration using housing loan data”

“Reserve Bank of India - Database.”

. https://rbi.org.in/scripts/BS_VIEWContent.aspx?ID=1919.

“Reserve Bank of India - Publications.”

<https://rbi.org.in/Scripts/PublicationsView.aspx?id=16223>.

“Reserve Bank of India - RBI Bulletin.”

https://rbi.org.in/SCRIPTs/BS_ViewBulletin.aspx?Id=15780.

“WP 226 - Jagannath Mallick.PDF - WP 226 - Jagannath Mallick.pdf.”

<http://www.isec.ac.in/WP%20226%20-%20Jagannath%20Mallick.pdf>.

http://www.business-standard.com/article/economy-policy/households-put-two-thirds-of-their-savings-in-houses-gold-114053001457_1.html

http://www.business-standard.com/article/economy-policy/household-savings-shift-to-physical-assets-but-can-trend-be-reversed-114081800753_1.html

<http://www.dhanbank.com/pdf/reports/GCF-Nov%204-2011.pdf>.