Sector wise Savings in India- An Analysis

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INTRODUCTION

Capital formation plays a predominant role in all types of economics whether they are developed or developing development is not possible without capital formation. Capital formation refers to all the produced means of further production. Savings and investment are essential for Capital formation. Savings is the result of waiting or abstinence. When a person postpones his consumption to the future, he saves his wealth which he utilizes for further production if all people save like this, the aggregate savings will increase which can be utilized for investment purpose in real capital assets like machines, tool, canals, etc. but savings are different from hoardings. For savings to be utilized for investment purpose, they must be mobilized in banks and financial institutions. The businessmen, the entrepreneurs and the formers invest this community savings on capital goods by taking loans from these banks and financial institutions, this is capital formation. Capital is the care of economic development and development is not possible domestic savings depressed by without adequate capital resources. Capital formation plays an important role in increasing the production potential of the economy and bringing about balanced growth of the different sectors of the economy and additional capital bring about technical progress in the economy. Capital formation also plays a significant role both in deepening and widening the industrial base of a developing economy like India.

To achieve the optimum rate of economic growth, the rate of capital formation should be above 40% of the GDP. In India the gross capital formation for the year 2009-10 was 36.5% of the GDP. It was composed of 9.2% in public sector and 24.9% in private sector. The investment from household sector was 11.7% and investment from the corporate sector was 13.2%.

Capital formation is a key drive of the growth of potential output. With India's continuing widespread capital controls and persistently small inward foreign direct investment, the volume of capital formation in the country is constrained by domestic savings depressed by the continuing large public sector deficits, the national savings rate in India (the sum of the savings rate of households, enterprises and the state) is much below China's savings rate of nearly 40% of gross domestic product (GDP). Even the extant Indian savings rate should be able to support a higher growth rate than has been achieved thus far. An important reason it does not is that the intermediation of savings, by the formal financial system, into domestic capital formation is inefficient.

METHODOLOGY

This study aims to analyze the sector wise contribution to savings in India after globalization. So it covers the period from 1990-91 to 2010-11. Data obtained from various volumes of Economic Survey of Government of India. This study utilizes percentage, correlation, simple regression, 't'- test, 'F- ratio' for the analysis.

LIMITATION

In India the estimation methodology of savings and capital formation after 2011-12 by the Government of India. So this study covers the period from 1990-91 to 2010-11 only.

REVIEW OF LITERATURE

This section has devoted to the review of literature of this study which gives some important points related to this analysis.

Dhawan (1998) explain that the decade of the 1990s has witnessed a renewed interest in the area of capital formation in Indian agriculture. This study began with the observation of a decline in public investment that set in during the early 1980s, and has been followed by a series of studies and debates on related issue like relationship between public and private investment in agriculture and the trend of rural savings.

Zivot and Andrews (1992) analyze that the procedure to endogenously determine the structural breaks occurred in 1984 for real output, in 1980 for savings and in 1979 for investment. These data focus on the impact of savings and investment on output during the reference period. Additionally, the authors explain that the procedures of output and determination factor also are discussed.

Another study by Rakshit (1982) points out that the remarkable rise in the net domestic savings and of Net Domestic product during this period. In this connection the author also points out that the study establishes a relationship between savings and capital formation in India.

According to Rajkrishna and Raychaudhuri (1982) the trend of rural household savings and net capital formation in agricultural sector during the period from 1950-51 to 1973-74. During these periods the trend of rural household savings were compared with previous periods of 1940-50. But there has been acceleration of savings and capital formation in more recent years. The authors estimate that the savings propensity is higher during the study period

Modigliani (1970) and many others provide empirical evidence of the positive correlation between savings and output for a large number of countries. This direct relationship is often argued as supporting the Solow style model of growth in which a higher savings rate causes transitory growth to a higher steady state level

of output. However there is growing evidence that causation may run in the other direction, from growth to savings, called the Carroll-Weil hypothesis. There is further disagreement about the subsequent effect of savings on investment.

Sidhu and Others (2006) in their findings observe that the capital accumulation depends on the rate of investment, which in turn depends on the rate of savings. The financial institutions play a dominant role in mobilizing savings and then channelizing those savings for investments into productive economic activities. Therefore, the role of financial institutions is crucial in the development of any sector and agriculture is no exception to it. Rather the development of agriculture sector is more dependent on banking sector because 80 per cent of the farmers are small and marginal. Such marginalized farmers need to be helped by institutional sources.

METHODOLOGY FOR ESTIMATION OF GROSS DOMESTIC SAVINGS AND GROSS CAPITAL FORMATION

The methodology followed to estimate the GDS and GCF has been brought out by the CSO in the book 'National Accounts Statics: Sources and Methods'. The latest has been published in 2007 [CSO, 2007a]. The methodology followed for the estimation has been described briefly in this section.

1. METHODOLOGY FOR ESTIMATION OF GROSS DOMESTIC SAVINGS

(i)PUBLIC SECTOR SAVINGS

The gross savings of government administration, quasi bodies and departmental enterprises is estimated as the difference between current receipts over current expenditure. The current receipts comprise of income from

entrepreneurship and property, direct taxes and other receipts, while the current expenditure covers final consumption expenditure, interest payment, subsidies and current transfer.

The gross savings of the non-departmental enterprises is estimated by aggregating transfer of certain reserves, profits and retained earnings from profit and loss and appropriation account to the balance sheet, after adjustments for expenditure/ income relating to previous years. The gross savings of the Banking Department of the RBI, which is included under non-government department, is estimated by adding the annual contribution to various long-term and stabilization funds. In case of the LIC and UTI Mutual Fund, savings is estimated based on its general insurance business only. The estimate of savings due to life insurance business and management of funds is considered as a part of the household sector savings.

(ii)**PRIVATE CORPORATE SECTOR SAVINGS**

For non-government non-financial companies, the gross savings of public and private limited companies is estimated as the sum of retained earnings adjusted for non-operating surplus or deficit and gross of depreciation provision. Retained earnings are those, which are reinvested into business after making payments towards interest, tax provision, dividends and depreciation provision for various fixed assets.

For private commercial banks under non-government financial institution, gross savings is estimated as addition to the reserve funds, which includes net amount carried to reserves, depreciation provisions, amount allocated for other special purposes etc. The procedure followed for estimation for private financial and investment companies, is same as that of non-financial companies.

Gross savings for co-operative societies is estimated as the increase in statutory funds, other reserves and other funds. Due to non-availability of data, the estimate of savings has been done based on trend observed in the value added of bank and trade sector. The gross savings for the quasi-corporate bodies, for which annual reports are available, is estimated by deducting the current expenditure from current receipts. For the rest of the quasi corporate bodies, savings is estimated based on the trends observed in the gross value added.

Estimation of savings is done by blowing up the sample company's results on ratio of population Paid-up Capital (PUC) to that of the sample companies.

(iii)HOUSEHOLD SECTOR SAVINGS

Estimates of savings for the household sector consist of two parts-financial savings and savings in the physical assets. The estimates of financial savings are derived by the changes in financial assets held by the households in the form of currency, deposits with financial institutions, shares and debentures, claims on government, net equity in the life funds, provident and pension funds net of changes in the financial liabilities. Thus, the estimates of financial savings of the households are derived as the increments in the financial assets net of increments in their financial liabilities. The estimates in case of various financial instruments, except for savings in the form of life insurance funds and provident & pension funds, are derived as a residual after estimation for such instruments held by the public and private corporate sectors.

HOUSEHOLD SECTOR SAVINGS IN FINANCIAL ASSETS

(a) **CURRENCY:** Based on past behavior of trends of currency holding of the households and non-household sector, 93 percent of 'Currency with the

public' issued during a financial year is treated as household savings in the form of currency. This procedure has been followed since 1985-86.

(b) **NET DEPOSITS:** The household sector savings in the form of net deposits is estimated based on the deposits with commercial banks, non-banking companies (comprising financial and non-financial companies, both in the public and private sectors, including State Electricity Board), co-operative banks and societies and net trade debt, after deducting the bank credit and loans and advances provided by these institutions to the household sector. Household savings in net trade debt is estimated as changes of trade dues in respect of sundry debtors from sundry creditors.

(c) **NET CLAIMS ON GOVERNMENT:** This incorporates investment made by the household sector in government securities, small savings, capital investment bonds, national rural development bonds, national deposit scheme and other schemes brought by the Government. Household investment in Government securities is estimated based on the sale of total securities of central and state government using the proportion of securities purchased by the household to total securities. The net claims on government are estimated after deducting the household's net borrowings from the government. The small savings covers national savings certificates, post-office savings, Indira Vikas Patras, Rahat Patras etc.

(d) **INVESTMENT IN SHARES, DEBENTURES AND BONDS:** The household sector saves a part of their financial assets in the 'shares and debentures' of non-government companies, government companies, co-operative banks and societies, bonds issued by public sector enterprises, units of UTI, and other mutual funds and by financial corporations. Investment in shares and debentures issued by non-financial government companies is derived as a residual after deducting the investment of the

public and private corporate sector from the total investment in such instruments. The total estimate of savings in 'shares and debentures' is arrived at by blowing up the sample estimate of 'shares and debentures' of public and private limited companies based on the ratio of global PUC to sample PUC of public and private limited companies.

(e) **LIFE INSURANCE FUNDS:** Life insurance funds cover Life Fund of Life Insurance Corporation of India (LIC), Postal Insurance and Life Annuity Fund, Central government Insurance Fund and State government Insurance Fund. The total savings of households in the form of life insurance, Central Government life insurance, net of loans and advances to households by LIC and GIC etc. Households' savings in the case of LIC is estimated as an increase in life Fund of the LIC and bonus to policyholders excluding government shares in profit, capital goods and old claims. In case of private life insurance Scheme and State Government life Insurance Fund, households' savings is estimated as the difference between receipts and payments. Receipts includes subscription realized, interest accrued, while payments comprise payment of loan to policyholders, insurance amounts and other miscellaneous charges.

(f) **PROVIDENT AND PENSION FUNDS:** Provident and Pension Funds covers the Central and State Government Provident Fund, Public Provident Fund, Non-Government Provident Fund and Pension Funds. The estimates of household savings in Provident Fund is obtained by adding contribution to the Provident Fund (by both employees and employers, in case of contributory schemes and only employees, in case of non-contributory schemes), interest earned, recovery of advances after deducting final withdrawals. In case of local authorities, contribution of the employees towards PF is estimated as 6 percent of wages and salaries

HOUSEHOLD SECTOR SAVINGS IN PHYSICAL ASSETS

Households' savings in physical assets, also termed as households' capital formation, comprise investment in construction, machinery & equipment and changes in stocks. Households' capital formation in construction and machinery & equipment is estimated as residual by deducting the estimates of public and private corporate sector from the total fixed assets, estimated by commodity flow approach. Change in stocks is estimated independently by industry of use.

TABLE NO: 1.

India's Sector wise Gross Domestic Savings From 1991-92 to 2000-01 in Rs. billion

S.No	Year	Household Sector Savings	% of Change	% to the Total Gross Domestic Savings	Other Sector Total	% of Change	% to the Total Gross Domestic Savings	Total Gross Domestic Savings	% of Change
1	1991-92	1056.32		73.60	378.98		26.40	1435.30	
2	1992-93	1279.43	21.12	77.72	366.77	-3.22	22.28	1646.21	14.69
3	1993-94	1514.54	18.38	78.48	415.40	13.26	21.52	1929.94	17.24
4	1994-95	1871.42	23.56	75.87	595.26	43.30	24.13	2466.68	27.81
5	1995-96	1985.85	6.11	68.65	906.80	52.34	31.35	2892.65	17.27
6	1996-97	2246.53	13.13	70.56	937.34	3.37	29.44	3183.87	10.07
7	1997-98	2841.27	26.47	74.81	956.63	2.06	25.19	3797.90	19.29
8	1998-99	3521.14	23.93	84.21	660.45	-30.96	15.79	4181.59	10.10
9	1999-00	4388.51	24.63	84.91	779.96	18.10	15.09	5168.46	23.60
10	2000-01	4637.50	5.67	89.95	517.96	-33.59	10.05	5155.45	-0.25
		25342.51		**79.55**	**6515.55**		**20.45**	**31858.10**	

Statistical Results:

Y= -0.0076 + 0.99x1 +1.00x2

(0.0) (0.00) (0.00)

t= 1.8996 93915 17209

R= 1 R square =1 Adjusted R square=1

F= 5.7

India's Gross Domestic Savings was Rs.1435.3 billion in 1991-92 and Rs.5168.46 billion in 2000-01. Except 2000-01, it was on positive growth in all the years. This ten-year period was the beginning years of the New Economic policy introduced in India. There was a tremendous growth in Household Sectors Savings. It was Rs.1056.32 billion in 1991-92 and Rs.4637.5 billion in 2000-01. Every year it contribution more than 68% to the Gross Domestic Savings. Its contribution was maximum in the year 2000-01, ie.89.95%. Other Sectors Savings increased marginally during this period. It was Rs.378.98 billion in 1991-92, Rs.956.63 billion in 1997-98 and Rs.517.96 billion in 2000-01.

It is observed from the statistical results that one unit change in household sectors savings caused 0.99 change in the total gross domestic savings and one unit change in other sectors savings made 1 unit change in the total gross domestic savings. R, R square and adjusted R square were 1 and all the results were statistically significant.

TABLE NO: 2.

India's Sector wise Gross Domestic Savings From 2000-01 to 2010-11 in Rs. billion

S.No	Year	Household Sector Savings	% of Change	% to the Total Gross Domestic Savings	Other Sector Total	% of Change	% to the Total Gross Domestic Savings	Gross Domestic Savings	% of Change
1	2001-02	5452.88		93.15	400.86		6.85	5853.75	
2	2002-03	5641.61	3.46	85.97	920.69	129.68	14.03	6562.29	12.10
3	2003-04	6575.87	16.56	79.83	1661.88	80.50	20.17	8237.75	25.53
4	2004-05	7636.85	16.13	72.68	2870.18	72.71	27.32	10507.00	27.55
5	2005-06	8689.88	13.79	70.35	3661.63	27.57	29.65	12351.50	17.55
6	2006-07	9943.96	14.43	66.92	4915.13	34.23	33.08	14879.10	20.30
7	2007-08	11183.47	12.46	60.90	7179.85	46.08	39.10	18363.30	23.58
8	2008-09	13308.73	19.00	73.83	4717.47	-34.30	26.17	18026.20	-1.54
9	2009-10	16390.38	23.16	75.08	5439.32	15.30	24.92	21829.70	21.10
10	2010-11	17493.11	6.73	70.48	7326.19	34.69	29.52	24819.30	13.70
		102516.74		**72.35**	**39093.20**		**27.65**	**141410.00**	

Statistical Results:

Y= -0.0037 + 1.00x1 +0.99x2

(0.0054) (9.09) (1.60)

t= - 0.68 10996 62330

R= 1 R square =1 Adjusted R square=1

F= 5.21

India's gross domestic savings was Rs.5853.75 billion in 2001-02 and Rs.24819.3 billion in 2010-11 and the total gross domestic savings was Rs.141410 billion during those ten years.

House sectors savings was Rs.5452.88 billion in 2001-02 and Rs.17493.11 billion in 2010-11 and the total household sectors savings was Rs.102316.74

billion during those ten years. Others sectors savings was Rs.400.86 billion in 2001-02 and Rs.7326.19 billion in 2010-11 and the total other during those ten years.

Percentage contribution to the total gross domestic savings shows that even though household sectors contribution was more in terms of rupees, its contribution was on the declining path and the other sector contribution was on the increasing path. In 2001-02, household sectors contribution was 93.15% and other sectors contribution was 6.85% to the total gross domestic savings, but in 2010-11, household sectors contribution was 70.48% and other sectors contribution was 29.52% to the total gross domestic savings.

It is observed from the statistical results that one unit change in household sectors savings caused one unit change in the total gross domestic savings and one unit change in other sectors savings made 0.999 unit changes in the total gross domestic savings. R, R square and adjusted R square were 1 and all the results were statistically significant.

CONCLUSION

From the classical days, savings has been considered as one of the determinants of growth. To lead the underdeveloped countries to the path of development, rate of savings must be enhanced. For the individuals and households, savings provide a cushion of security against future contingencies, whereas for the nation, savings provide the funds needed in the developmental efforts. To achieve higher rate of growth with relative price stability, the marginal propensity to save should be appropriate incentives and policies. Also, in an era of international financial integration, for macroeconomic stability, higher domestic savings is necessary.

Aggregate savings in any economy depends on a number of interdependent variables. In the Indian economy, the household sector contributes a lion's share of the total savings and hence, to step up savings in the economy, savings rate of the household sector should be stepped up both in the rural and urban sectors.

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