Report of the Sub-Group on Household Sector Savings for the Eleventh Five Year Plan (2007-08 to 2011-12)

Constitution of the Sub-Group and Proceedings

The Working Group on Savings for the Eleventh Plan (Chairman: Dr. Rakesh Mohan) in its first meeting dated July 15, 2006 at New Delhi had decided, among others, the formation of the Sub-Group on Household Sector Savings. This Sub-Group held its first meeting on August 31, 2006 at the Reserve Bank of India, New Delhi and deliberated on the action plan to be adopted including in particular the methodology for projecting household saving instrument-wise for financial assets as well as physical assets. Terms of Reference of the Sub-Group are as follows:

- To review the developments and likely behavioral pattern during the 11th Plan period;
- To estimate household savings - physical and financial and their components - in light of the policy and structural changes in the financial sector; and
- To explain the procedures followed for estimation.

Constitution of the Sub-Group is as below:

1.	Dr. R. Kannan Principal Adviser, DEAP, RBI, Mumbai	Convener
2.	Dr. Ramesh Kolli Deputy Director General, CSO, New Delhi	Member
3.	Shri Arvinder Sachdeva, Director, Planning Commission, New Delhi	Member
4.	Shri M.C. Singhi, Senior Adviser, Ministry of Finance, New Delhi	Member
5.	Dr. Ashima Goyal Professor, IGIDR, Mumbai	Member
6.	Ms. Ritu Anand SBI, Mumbai	Member
7.	Dr. B. K. Pradhan IEG, Delhi	Member
8.	Dr. Amaresh Dubey NCAER, New Delhi	Member

9. Dr. H. Sadhak — Member
LIC, Mumbai

10. Shri A. Viswanathan, — Member
Central Provident Fund Commissioner, New Delhi.

Secretariat for the Sub-Group was provided by the Division of National Income, Savings and Flow of Funds (DNISFF), Department of Economic Analysis and Policy, Reserve Bank of India, Mumbai. The sub-group wishes to place on record the support received from the technical team consisting of Shri P.K. Nayak, Asst. Adviser, Dr. Kumarjit Mandal and Shri Vanlalruata Fanai, Research Officers under the guidance of Dr. Deba Prasad Rath, Director, DNISFF and Shri K.U.B. Rao, Adviser.

The Report is organized as below: Section I is introductory in nature. Section II provides the trends in gross domestic savings at the overall as well as sectoral levels, focusing mainly on the household financial and physical savings. Section III provides the instrument-wise analysis of financial savings and brings out the emerging patterns of household preferences that emanates from an analysis of the more recent data in this regard. Section IV highlights the select issues taken into consideration by the Sub-Group. Sections V and VI dwell on the underlying methodology of estimation and provide the results of the exercise under multiple scenarios of growth as highlighted in the Approach Paper to the Eleventh Plan respectively. Section VII provides the limitations of the exercise and Section VIII provides a summing up with the Sub-Group's assessment.

Section I - Introduction

Gross Domestic Saving (GDS) of the Indian economy constitutes savings of public, private corporate and household sectors. The estimates of savings both at overall and sectoral levels are finalized and disseminated by Central Statistical Organisation (CSO). At the sectoral level, savings estimates for the public sector and private corporate sectors are prepared by CSO, the latter on the basis of company finance studies of Reserve Bank of India (RBI). The savings of the household sector are estimated separately under financial assets and physical assets. RBI takes the responsibility for estimating the household savings in financial assets, while CSO estimates the household savings in physical assets. The methodology for compilation of these estimates of saving and investment has been described in CSO's publication 'National Accounts Statistics: Sources and Methods, 1989'.

In India, it is the household sector which occupies a position of dominance over the other institutional sectors like private corporate sector and the public sector in terms of generating saving. This sector is defined to comprise individuals, non-government non-corporate enterprises of farm business and non-farm business like sole proprietorships and partnerships, and non-profit institutions. According to the 'Sources and Methods', for the estimation of savings, the household sector is defined to represent the rest of the economy after excluding the organized segments of the economy – namely public and private corporate sectors - and it is in this sense that the household sector includes unincorporated enterprises apart from pure households. The savings of the household sector in physical assets are not estimated independently. CSO estimates the household investment and transfers the same to the account of household saving in physical assets. As a result, the estimates of household savings in physical assets and household investment are the same estimated through Commodity Flow Approach. The financial savings emanate from the economy-wide Flow of Funds accounts (FOF).

If there is higher mobilization of household savings, it means higher availability of resources in the economy for growth and development. Particularly, the savings in financial assets by households are more important from the resource mobilization point of view because of their liquidity characteristics compared to physical savings and therefore can be translated into investment more easily. While it is true that savings provide the resource base for the economy to grow, the literature has identified certain factors that come to focus in deciding the level and distribution of savings. Prominent among them that typically appear in a standard savings function analysis are income and rates of interest, the former drawing from the observed strong association between growth and savings, and the latter emerging to influence asset portfolios with it becoming increasingly market-driven, consequent to India's financial liberalization of the 1990s. Households deploy their savings across a cross-section of instruments with their preference pattern expected to evolve over time such that the households would hold those assets that would provide them higher risk-adjusted returns. Therefore, the observation of the trend in the pattern of choice of the households provides a clue to the rates of return in the economy.

The financial sector reforms have been introduced since 1992-93 in India. These reform measures have led to financial innovations which ultimately lowered the transaction costs and provided better returns to the investors. Likewise, Indian economy witnessed the dominance of financial savings by the households during the 1990s. This has, in turn, led to an increasing monetization of the economy as evidenced by rising bank deposits and other indicators. The increasing monetization also helped to boost the household financial savings.

Direct estimates of household saving and its composition are not available in India as it is a heterogeneous sector of individuals, non-government non-corporate enterprises of farm business and non-farm business like sole proprietorships and partnerships, and non-profit institutions. Household saving consists of saving in financial assets and physical assets. In respect of financial saving of the household sector, instrument-wise estimates are prepared as the sum of annual increase in financial assets net of increase in financial liabilities. Savings in financial assets comprise savings in the form of currency, 'net deposits', 'shares and debentures', 'net claims on government', 'life insurance funds' and 'provident and pension funds'. The household sector, in the scheme of saving and capital formation estimation, is essentially residual in nature. Of the saving instruments, 'life insurance funds' and 'provident and pension funds' constitute contractual saving.

(i) Household sector is treated differently from those of corporate and government sectors. A reason for this is that while corporate and government sectors have their balance sheets and income-expenditure accounts at annual intervals to base their annual savings estimates on, the household sector does not have such accounts for all its constituents (namely, pure households, HUF, self employed persons, trusts, proprietorships etc.).

(ii) For the purpose of estimation of household financial savings, as per the Method laid down in 'Sources and Methods, 1989, CSO, the economy-wide Flow of Funds (FOF) is used as the analytical tool. For the FOF, the economy is classified into six sectors (corporate, public, rest of world, banking and other financial institutions and the residual being the household sector comprising heterogeneous entities like individuals, unincorporated business enterprises – like sole proprietorships and partnership concerns, non-profit institutions) and nine instruments (currency, deposits, investments, loans and advances, small savings, life insurance funds, provident funds, trade debt, foreign claims etc.). It can be seen that the households sector as relevant for savings estimation is exactly the same as for FOF estimation.

(iii) Household's financial saving is estimated as a sum of flow in the above instruments as they emerge from the accounts of the oragnised sectors (five in FOF scheme of sectorisation).

(iv) Given the heterogeneous composition of the household sector and the absence of annual accounts, the sector is being treated residually as direct estimation of savings would not be possible under such circumstances.

(v) Savings of an economic unit can be estimated either from the income account as earned surplus, being the difference between current income and current consumption and taxes or from the balance sheet as earned net worth, being the difference between changes in assets and liabilities, adjusted for capital gains and losses, revaluation of assets and transfers. Conceptually, the two measures of savings should yield identical results provided both exclude valuation changes.

(vi) It may be pointed out that savings intermediated through the financial system will be higher than the ratio of net financial savings indicates. The latter is lower partly because financial liabilities are high. Given the way savings are measured in India, part of financial liabilities finance household physical savings but they are deducted from household financial savings, thus lowering the share of financial savings.

Section II - Trends in Domestic Savings

The rate of gross domestic savings (GDS) i.e. GDS as a proportion of Gross Domestic Product at current market prices (GDPCMP) has more than doubled from an average of around 10 per cent in the 1950s to over 23.2 per cent in the 1990s. It scaled a peak of 25.1 per cent in 1995-96. After dipping to 23.6 per cent in 2001-02, it recovered to 26.1 per cent in 2002-03, and reached a new peak of 29.1 during 2004-05. This rate of GDS at 29.1 per cent is the highest saving rate ever achieved in India since 1950-51 (Table 1).

Table 1: Decadal Sector-wise Saving Rates

(Per cent of GDPCMP)

	1950s	1960s	1970s	1980s	1990s	2000-01 to 2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
1	2	3	4	5	6	7	8	9	10	11	12
Gross Domestic Saving	**10.0**	**12.6**	**17.5**	**19.4**	**23.2**	**26.3**	**23.5**	**23.6**	**26.5**	**28.9**	**29.1**
1. Private Corporate Sector	1.0	1.5	1.6	1.8	3.7	4.2	4.1	3.6	4.1	4.4	4.8
2. Public Sector	1.8	2.8	3.7	3.0	1.0	-0.2	-1.8	-2.0	-0.7	1.0	2.2
3. Household Sector	7.2	8.4	12.2	14.6	18.5	22.4	21.2	22.0	23.1	23.5	22.0
a) Financial Saving	1.9	2.7	4.6	6.8	10.0	10.6	10.2	10.8	10.3	11.5	10.3
b) Saving in Physical Assets	5.2	5.7	7.6	7.8	8.5	11.7	11.0	11.2	12.7	12.0	11.7

Source: Central Statistical Organisation

Cross-country comparison of GDS rate of India and select Asian countries is given in Table 2.

Table 2 : Rate of Gross Domestic Saving of Select Asian Countries

(Per cent)

	Country	1970s	1980s	1990s	2000-01 to 2004-05
1	Bangladesh	1.4	8.5	14.2	17.9
2	Bhutan	6.1	11.9	27.4	43.8 #
3	China	31.0	35.1	39.2	38.8 #
4	Hong Kong, China	31.4	33.8	31.5	31.1
5	**India**	**17.5**	**19.4**	**23.2**	**26.3**
6	Indonesia	27.3	31.0	30.1	28.1
7	Malaysia	27.7	30.7	41.9	42.7 #
8	Maldives	..	..	46.2	46.3 #
9	Pakistan	7.9	8.7	15.6	16.2
10	Singapore	30.6	42.2	48.9	44.4
11	Sri Lanka	13.2	13.0	16.4	15.3
12	Thailand	22.4	27.6	35.0	30.7

.. Data not available # Data available upto 2003-04.

Source: World Bank Online Database and NAS for India.

II.1 Trends in household savings

The rate of savings of the household sector (as percentage to GDP at current market prices) increased from around 7 per cent in 1950s to over 18 per cent in 1990s, and further to 22.4 per cent during 2000-01 to 2004-05 (Table 3).

Table 3: Household Sector Saving Rates

(Per cent)

		1950s	1960s	1970s	1980s	1990s	2000-01 to 2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
1	**Household sector**	**7.2**	**8.4**	**12.2**	**14.6**	**18.5**	**22.4**	**21.2**	**22.0**	**23.1**	**23.5**	**22.0**
1.1	***Financial saving***	***1.9***	***2.7***	***4.6***	***6.8***	***10.0***	***10.6***	***10.2***	***10.8***	***10.3***	***11.5***	***10.3***
a)	Currency	0.5	0.7	0.9	1.1	1.2	1.2	0.7	1.2	1.2	1.5	1.3
b)	Net deposits	0.2	0.6	1.6	1.9	3.2	2.9	3.4	3.1	3.0	3.3	1.7
c)	Shares and debentures	0.3	0.4	0.2	0.6	1.3	0.3	0.4	0.2	0.2	0.1	0.3
d)	Net claims on government	0.3	-0.1	0.1	0.9	1.0	2.5	1.8	2.2	2.3	2.8	3.3
e)	Life insurance funds	0.2	0.3	0.5	0.7	1.1	1.8	1.6	2.0	1.7	1.8	2.0
f)	Provident and pension funds	0.4	0.8	1.3	1.6	2.2	2.0	2.3	2.0	2.0	1.9	1.8
1.2	***Saving in physical assets***	***5.2***	***5.7***	***7.6***	***7.8***	***8.5***	***11.7***	***11.0***	***11.2***	***12.7***	***12.0***	***11.7***

Source: Central Statistical Organisation.

The share of household sector in GDS also increased from just over 70 per cent in 1950s to around 80 per cent in the 1990s. During 2000-01 to 2004-05, its share in GDS increased further to more than 85 per cent.

II.2 Trends in Household Financial savings

Within household sector, financial saving steadily gained increasing importance since the 1950s. Especially in the 1990s, financial liberalisation has an important bearing on financial saving as it encouraged the creation of newer instruments and avenues of saving while reducing intermediation costs. As reported in Table 1, the rate of financial saving increased from less than 2 per cent in the 1950s to 10 per cent in the 1990s. During 2000-01 to 2004-05, this rate stood at 10.6 per cent.

Table 4: Average share of various instruments in household financial saving

((Per cent)

Instruments	1981-82 to 1985-86	1986-87 to 1990-91	1991-92 to 1995-96	1996-97 to 2000-01	2001-02 to 2004-05	2001 -02	2002 -03	2003 -04	2004 -05
1	2	3	4	5	6	7	8	9	10
I Contractual Saving	**32.1**	**34.6**	**30.7**	**35.2**	**35.5**	**37.5**	**35.3**	**32.1**	**37.2**
1 Life insurance funds	9.2	10.3	10.5	12.1	17.6	18.6	16.3	15.7	19.8
2 Provident and pension funds	22.9	24.2	20.2	23.1	17.9	18.8	19.0	16.3	17.4
II Others	**67.9**	**65.4**	**69.3**	**64.8**	**64.5**	**62.5**	**64.7**	**67.9**	**62.8**
3 Currency	14.9	15.9	13.2	10.1	11.9	11.4	11.3	12.9	12.2
4 Net deposits	31.1	23.3	31.3	37.1	25.7	28.7	29.0	29.1	16.2
5 Shares and debentures	7.1	11.6	17.1	4.9	2.0	1.8	2.3	1.3	2.6
6 Net claims on government	14.8	14.6	7.7	12.7	24.8	20.6	22.1	24.8	31.9
III Household saving in financial assets	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data till 1998-99 are based on base year 1993-94 and data from 1999-2000 are based on base year 1999-2000.
Source: Central Statistical Organisation.

As a percentage of total household savings, financial saving increased from around 25 per cent in the 1950s to around 54 per cent in the 1990s. During 2000-01 to 2004-05, it however fell to around 47 per cent. Within financial savings of the household sector, bank deposits, contractual savings (consisting of life insurance and provident and pension funds) and the claims on government occupy the dominant components although with year-to-year changes. While contractual savings are on the rise especially since the second half of the 1990s, among non-contractual instruments, households are shifting their preference away from deposits to claims on government and shares and debentures (Table 4).

The share of financial saving in GDS also increased from 18.5 per cent in 1950s to 21.5 per cent in 1960s. By 1990s, its share in GDS doubled to around 43 per cent. In the post-2000, however, its share registered a decline.

II.3 Trends in Household Physical Savings

There was a decline in the share of savings in physical assets in the total savings of the household sector from 74.8 per cent in the 1950s to 45.9 per cent in the 1990s.

However, it again increased to 55.2 per cent by 2002-03. By 2004-05, it stood at 53.2 per cent (Table 5).

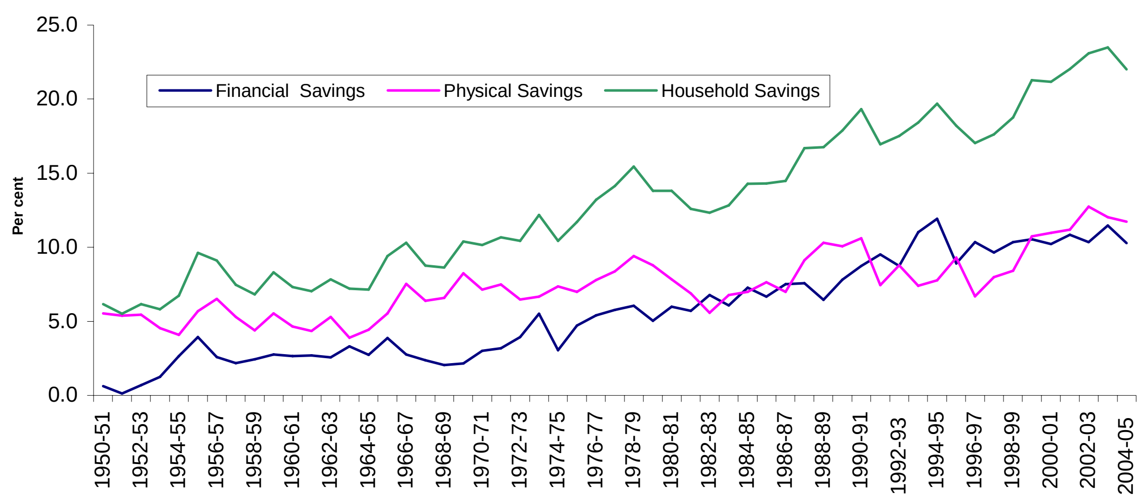
Table 5: Composition of household savings in financial and physical assets

(Per cent)

Period	Financial	Physical
1950s	25.2	74.8
1960s	33	67
1970s	36.9	63.1
1980s	46.8	53.2
1990s	54.1	45.9
2000-01 to 2004-05	47.5	52.5

As a percentage of GDP at current market prices, household sector savings in physical assets steadily increased from 5.2 per cent in the 1950s to 7.6 per cent in the 1970s and further to 8.5 per cent in the 1990s and further to 11.7 per cent during 2000-01 to 2004-05 (Table 1 and Chart 1).

Chart 1 : Rates of Household Savings



According to CSO's 'Sources and Methods, 1989', net addition to physical assets of the households, comprising investment in fixed assets of construction and machinery and equipment, and change in stocks, is taken to constitute households' saving in physical assets.

Among these components, construction contributed more than 60 per cent of physical savings, followed by 'machinery and equipments'.

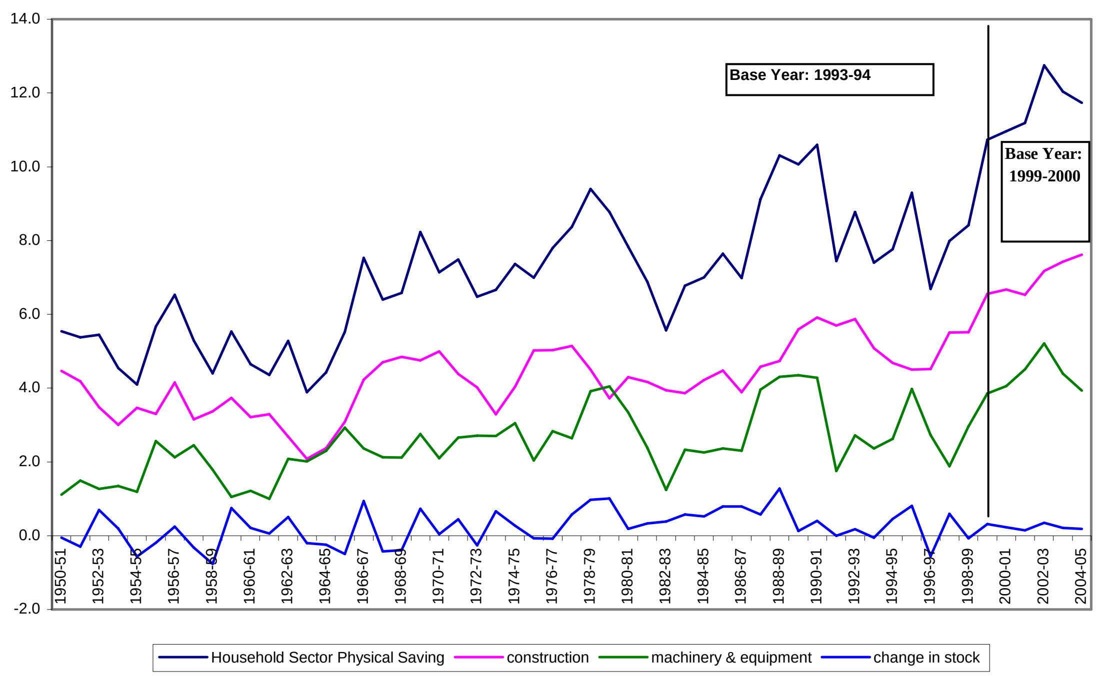
Table 6: Composition of Household Physical Saving

(Per cent)

Item	1950s	1960s	1970s	1980s	1990s	2000-01 to 2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
a) Construction	69.3	62.0	57.8	56.0	63.3	60.4	60.8	58.4	56.3	61.7	64.9
b) Machinery & equipment	31.3	36.8	37.6	36.9	34.3	37.7	37.0	40.3	40.9	36.5	33.5
c) Change in stock	-0.6	1.2	4.7	7.1	2.4	1.9	2.1	1.3	2.7	1.8	1.6
Household Sector Physical Saving	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Central Statistical Organisation.

Chart 2: Components of Household Physical Savings



In recent years, it has been observed that the share of construction in physical savings has increased while that of 'machinery and equipments' and 'change in stock' gradually decreased (Table 6 and Chart 2), resulting in turn from the booming construction activities.

II.4 Projections *vis-à-vis* Actuals for the Ninth and Tenth Plans

Details of projections made in respect of instrument-wise financial savings of the household sector for the previous two Plans, namely the Ninth and Tenth Plans, as projected by the earlier Working Groups and their comparison with the actual estimates for the respective periods are set out in Table 7 below giving the Plan-wise summary position.

Table 7: Household Savings Rate: Projections for the Ninth (1997-2002) and Tenth (2002-07) Five Year Plans and the Actual Rates Achieved So Far

		Ninth Plan		**Tenth Plan**		
	Item	**Projection**	**Actual Achieved (Average)**	**Projection-I (Baseline) (6.5 % GDP Growth)**	**Projection-II (Alternative) (8.0 % GDP Growth)**	**Actual achieved so far (Average)**
	1	2	3	4	5	6
A	**Gross Financial Saving**	**13.3**	**12.1**	**13.5**	**13.7**	**13.6**
1	Currency and Deposits (a+b)	6.6	6.0	6.1	6.4	6.8
(a)	Currency	1.5	1.0	1.0	1.1	1.3
(b)	Deposits (i+ii)	5.2	5.0	5.1	5.3	5.5
	(i) Banks	3.7	4.6	4.7	4.8	5.4
	(ii) Non-bank	1.5	0.4	0.4	0.5	0.2
2	Capital Market Related	1.6	0.5	0.8	0.9	0.2
(a)	Shares and Debentures	1.1	0.3	n.a	n.a	0.2
(b)	Mutual Funds (including units of UTI)	0.5	0.2	n.a	n.a	0.1
3	Contractual (a+b)	3.9	3.9	5.1	5.0	3.8
(a)	Life Insurance Fund	1.5	1.6	1.7	1.7	1.9
(b)	Provident and Pension Fund	2.4	2.4	3.4	3.3	1.9
4	Others (a+b)	1.1	1.6	1.4	1.5	2.8
(a)	Claims on Government	1.1	1.7	1.4	1.6	2.8
(b)	Trade Debt (net)	0.0	-0.1	Neg.	Neg.	Neg.
B	**Financial Liabilities**	**2.7**	**1.8**	**2.1**	**2.2**	**2.9**
C	**Net Financial Savings (A-B)**	**10.5**	**10.3**	**11.4**	**11.5**	**10.7**
D	**Physical Savings**	**8.3**	**9.9**	**8.3**	**8.4**	**12.2**
E	**Total Household Savings (C+D)**	**18.9**	**20.2**	**19.7**	**19.9**	**22.9**

Neg. Negligible. n.a Not available separately.

Notes: 1. Rates are as percentage of Gross Domestic Product at current market prices.
2. Sub-totals of the rates may not add up to total because of the rounding off.

The following salient points emerge from an analysis of the above table:

1. While the rates of net financial savings as projected for the Ninth Plan are broadly in alignment with the actual estimates, for the Tenth Plan, there is a deviation between

the two (under both the growth scenarios of 6.5 and 8 per cent, as reported in columns 4 and 5), which is more on account of deviation for financial liabilities, notwithstanding the alignment in those for gross financial savings.

2. For the Tenth Plan, the estimates for financial liabilities are higher than projections which also apparently explain in part the estimate for physical savings remaining higher than its projection. In fact in the recent period, the Indian economy has witnessed strong credit growth in the economy with a significant part of it accruing to the household sector for education and personal loans and increased availability of credit cards loans, housing finance spurred by attractive tax incentives and retail loans, attributable, in turn, to growing middle class with high disposable income (as explained in the Section III below).
3. For the Ninth Plan, estimates for both gross financial savings and financial liabilities were lower than the projections, by 1.2 and 0.9 percentage points.
4. An instrument-wise analysis indicates that for the Ninth Plan, estimates for bank deposits and claims on government were substantially higher than their projections, while the converse was the case for all other instruments. For the Tenth Plan, excepting shares and debentures, mutual funds and contractual savings, in respect of all other instruments, estimates were higher than projections.

Keeping the above in view, there is a need to devise the projection framework for the sub-group's report incorporating suitable changes in the existing specification (as adopted in the 10th Plan exercise).

Section III - Instrument-wise Analysis and Emerging Issues

In the preceding section, an analysis was made on the long-term evolution in instrument-wise shifts in households' savings. In this section, an attempt would be made to have an instrument-wise analysis on the basis of more latest available data (i.e., for 2005-06) and set out the changes and the emerging trends in preference patterns in the more recent period.

- As can be seen in Table 1, while financial savings of the household sector as a percentage of GDP has increased from 10.0 per cent in the 1990s to 10.6 per cent during 2000-01 to 2004-05, physical savings have increased significantly from 8.5 to 11.7 per cent over this period. This behaviour appears to be counter to expectations as considerable financial deepening and monetization are occurring at present over this period, and one would expect financial savings to have been the dominant form of savings for households.

- As a proportion to GDPCMP, household saving in bank deposits increased from 5.1 per cent in 2004-05 to 7.8 per cent in 2005-06 – an increase of 2.7 percentage points, mainly attributable to a variety of factors like higher growth in GDP in 2005-06 (8.4 per cent as compared with 7.5 per cent in 2004-05), rise in interest rates over the course of the year, extra efforts put up by banks to raise deposits to fund the credit demand as credit growth outpaced deposit growth by a substantial margin, and higher return to the savers (at 9 per cent per annum) that Senior Citizen's Deposit Scheme (which started on August 2, 2004) is providing. With the offer of fiscal incentives on deposits with maturity of five years, the preference may increase for bank deposits of longer maturity.
- Household saving in currency has increased from 1.2 per cent in 2004-05 to 1.5 per cent in 2005-06, partly reflective of sustained growth in GDP especially from agriculture. Currency savings may maintain its level if agriculture gets a boost as envisaged in the 11th Plan Approach Paper.
- The saving of the household sector in 'shares and debentures' increased from 0.2 per cent in 2004-05 to 0.8 per cent in 2005-06. This is accounted for by higher resources mobilization through the public issues during the year, which was on the back of robust macro-economic fundamentals, congenial investment climate and strong corporate profitability, as well as strong mobilization recorded by mutual funds (other than UTI) in view of associated higher returns along with tax benefits to investors. During the period of mid-1990s till 2004-05, shares and debentures as a percentage of financial savings have declined from 4.9 per cent to 2.0 per cent. Is this likely to remain stable at this level? Factors to be kept in consideration are the mutual funds' performance in recent years surpassing the Sensex performance, strong

performance registered in the secondary market for equities, congenial investment climate, etc.

- Investment in 'Claims on Government' has registered a fall from Rs.1,06,420 crore in 2004-05 to Rs.86,755 crore in 2005-06. This may be on account of: (a) Fresh accruals under relief bonds are low given the fact that only one scheme (out of eleven earlier) is operational presently with 8 per cent saving (taxable) bonds, 2003. NRIs are not allowed to invest in the relief bond scheme since 2002. There seems to be some substitution away towards senior citizen saving scheme, 2004 in view of the higher interest rate at 9 per cent for this scheme; (b) Withdrawal of incentive of bonus from monthly postal deposit scheme has reduced the attractiveness of the postal savings; (c) Substitution towards, among others, banks' fixed deposits given the rise in interest rates for such deposits during 2005-06 and narrowing of the interest rate gap between the fixed deposits and small savings; (d) With the scrapping of section 80L of IT Act, there has been a downward impact on small savings instruments, like NSC, the accrued interest on them is now taxable and no longer qualifies for tax rebate; (e) Neutrality of tax concession among the savings instruments (within the overall ceiling of Rs. 1 lakh irrespective of savings instruments) might have reduced the attractiveness of small savings instruments floated by government vis-à-vis such other forms of savings available to the public; (f) The Government Savings Certificate Act, 1959 have been amended through the Finance Act, 2005 so as to restrict investment in these schemes to individuals only. Consequently, the rules governing the small savings schemes including Provident and Pension Fund (PPF) have also been amended and the amendments notified on 13.5.2005. As a result, effective from 13.5.2005 small savings schemes are available for investment by individuals only. This might have impacted the flow of small saving during 2005-06 and hence reduced the fresh accrual to small saving. Changes in provisions governing small saving instruments under claims on Government, as detailed above, are expected to impact on the household savings for such instruments in the medium term;

- As can be seen in Table 3, contractual savings are on the rise in the 1990s and during 2001-02 to 2004-05. Contractual savings are maintaining their levels achieved so far at 4 per cent of GDP. Do we expect contractual saving to increase with the pension reforms that are under way? Several policy-initiatives have been taken to encourage contractual savings in recent times. The insurance sector is now open to private sector participation and the latter has also become active with innovative products. Demand for insurance products expected to increase more due to insurance considerations of people than the fiscal provisions guiding such decisions as hitherto. So far, the household preferences for insurance were in part in response to fiscal provisions and high growth in the economy. With the instrument neutrality for tax incentives within the overall cap of Rs. 1 lakh, as envisaged in Union Budget, 2006-07, it is expected that such savings would increasingly be driven by insurance considerations of people. Secondly, as investments in the claims on life insurance is based on the actuarial calculations of the life tables of the investing household units, this pattern of household contractual saving might be facilitated by the present demographic scenario of the country. Attempts are being made to operationalise the report of the Committee on Old-Age, Social and Income Security (OASIS), which has underlined the need for individual's financial participation in the pension schemes. Besides, the Government of India has decided on converting the present pay-as-you-go scheme into a funded pension scheme, New Pension Scheme, 2004. Several State Governments and Central Government have made it obligatory for new entrants into Government services. These measures would lead to an increase in the relative share of contractual savings in the household sector; and
- On the liability side, there is an increase in total financial liabilities, with 'loans and advances from banks' to household sector contributing the higher share in liabilities - as a proportion to GDPCMP, loans and advances to the household sector from banks increased from 3.6 per cent in 2004-05 to 5.0 per cent in 2005-06 - an increase of 1.4 percentage points. This is reflective of broad-based strengthening of economic activities, in general, and pick up in

agriculture and housing credit, in particular, spurred by attractive tax incentives. Further, there has been a surge in the retail loans, attributable, in turn, to growing middle class with high disposable income, education and personal loans and increased availability of credit cards loans[1].

Whether the present dominance of physical savings over financial savings for the household sector will continue in future is an issue that needs consideration, keeping in view of the current economic developments like booming residential property market, increasing loan financing for housing, favourable demographic features of the economy, high salaries in sectors (like IT, finance and BPOs) with young skilled employees earning and having higher saving potentials and savers considering real estate investment as a hedge against inflation. The rising trend of household physical savings that is the case in Indian economy recently could possibly be explained by a host of factors, namely, (a) non-residential component of physical assets, which have been presumably contributed by the unincorporated business enterprises that are included in the household sector. The size of the unincorporated business enterprises is about 40 million at present; (b) ***High Salaries in Some Sectors***: In recent years the IT, finance and BPOs have emerged as the booming sectors of the economy. The young skilled employees of these sectors earn incomes which are much higher than the average incomes of the other lines of employment in the organized sectors (of course, the unorganized sector is kept out of the purview as no authentic data base is available). These high income net worth individuals have much higher savings compared to the rest of the working force. They prefer to invest this saving in the real estate; (c) ***Real Estate Investment as Inflation Hedge***: The investment in real estate has been the destination of savings of the people in recent times particularly since 1999-2000. The average risk-averse wage-earners prefer residential investment as it would provide them with better inflation hedge compared to any financial assets. (d) ***Unattractiveness of Financial Savings***: The attractiveness of financial assets has come down in recent years. The interest rates on bank deposits were falling till recently and at the same time many fiscal disincentives have come into play

[1] As per the Annual Policy Statement for the year 2006-07, the share of advances to 'individuals' increased from about 10 per cent of total bank credit in March 2002 to nearly 25 per cent in January 2006. Housing loans also increased by 29.1 per cent and accounted for 14.6 per cent of incremental non-food credit.

like interest income tax and mandatory disclosure of interest income; (e) ***Population Pressure***: Population pressure and demographic transition favouring the working population has put pressure on real estate prices. This would provide risk free automatic appreciation to the investment in real estate (f) ***Increasing Loan Financing for Housing***: Increasing liquidity supply from banks and financial institutions provide easy access to the housing loan at a reasonable interest rate. This is an added incentive for the younger high net worth wage-earners to go for housing investment; (g) ***Recent Slowdown of Financial Innovation***: The financial sector reforms have not been made much of the so-called deepening effect on the economy (Lanot and Lawrence, 2006). Therefore, the recent slowdown in the pace of financial sector reforms has taken away the preference for financial saving.

Section IV - Issues Considered by the Sub-Group

The Sub-Group felt that in order to form a medium-term assessment on the household savings, it is important to recognize the following aspects that may exert influence on such savings.

i. *High Income Growth*: Indian economy is on a high growth path. The Approach Paper to the 11th Five Year Plan project the growth rate for the eleventh five year plan period to be 8.5 per cent per year on average. Income growth amongst households will generate proportionately higher level of savings through the channel of higher personal disposable income (PDI). It is expected that the 11th five year plan period will have buoyant savings on this account.

ii. *Contractual Savings:* The contractual savings have been on the rise in the household financial savings. Among the instruments of contractual savings it is observed that while the share of claims on life insurance has been increasing the share of provident funds have been experiencing a decline. Now the investments in the claims on life insurance is based on the actuarial calculations of the life tables of the investing household units. Therefore, this pattern of household contractual saving might be the effect of the present demographic scenario of the country. With the entry of private sector insurance providing aggressive sales strategies demand for insurance products should also increase. If that is the case, the contractual savings trends are expected to continue for the 11th Five Year Plan period.

iii. *Fiscal Incentive for Term Deposits*: Because of financial innovations, the share of time deposits in total deposits is expected to come down. The bank deposits constitute the bulk of the savings of the households in the financial assets. Though in the recently available BSR survey, there has been an increase in the households' share in current and savings deposit for 2004-05 over 2003-04, the fall in the share of term deposits is continuing. It seems that households are no longer in favour of putting their financial resources in the form of term deposits of the banks. To check this development, the government has provided fiscal incentives in the budget for the fiscal year 2006-07- tax relief under Section 80cc. It is expected that this tax relief would provide more incentives to the households to invest in the term deposits with the banks.

iv. *Shares and Debentures*: The shares and debentures holding by the households have been stagnating around 2 per cent of gross household financial savings for last several years. While transactions in secondary markets are excluded, the buoyant stock markets are expected to raise better mobilization in the IPO market during the 11th five year plan.

v. *Small Savings*: The small savings mobilization has been on the increase till recently. However, very little is known about the determinants of the small savings. It was mentioned that though the volume of insurance business has been increasing in India, the penetration of this sector is not encouraging particularly during the last three years. That is why small savings have been considered as the most trusted instruments for savings by the households, particularly in the rural and semi-urban areas.

vi. Financial deepening and its impact on household savings: The issue of financial deepening and its impact on household savings assume importance in the sub-group's medium-term assessment. Theoretical/empirical works on financial deepening (McKinnon (1973) and Shaw (1973)) have propounded two major propositions: first, growth of real money balances augurs well for economic growth and saving; second, the growth of an economy depends, in part, on the degree of financial development or financial intermediation. Financial intermediation is seen as the extent to which financial institutions bring deficit spending units and surplus spending units together. Such a joining of spending units is likely to result in more deepening of the financial system (Goldsmith, 1969; Ghani, 1992; Greenwood and Jovanovic, 1990). In other words, there will be more investment in the economy through the financial system. Proxying financial deepening (FDEEP) as M3-GDPCMP ratio, the sub-group's empirical assessment reveals that household saving rate - overall (HSRATE) as well as financial savings (FINSRATE) - as expected, have positively significant association with financial deepening. Table 8 reports the regression results:

Table 8: Financial deepening and household savings

Equation 1

HSRATE = 3.90	+ 0.27 * FDEEP	+ 0.52 * AR(1)	
t-values	(2.92)	(9.77)	(3.23)

Adj. R^2 = 0.93, DW = 1.97, Mean = 16.09, SD = 3.85

Equation 2

FINSRATE = 0.23	+ 0.09 * FDEEP	+ 0.47 * FINSRATE(-1)	
t-values	(0.36)	(2.87)	(2.98)

Adj. R^2 = 0.84, DW = 2.22, Mean = 7.68, SD= 2.51

vii. The sub-group considered the issues of impact of Human Development Index, Young Dependency Ratio, Poverty Ratio etc., which are thrown out as important determinants of household saving under the framework of life cycle model

(Athukorala and Tsai, 2003). Household saving has been regressed in a level form with the above explanatory variables and results for the time period 1971-2004 are reported in Table 9. It can be seen that only the coefficient of log of PDI is positively significant. However, the DW statistics is very low indicating a possibility of autocorrelation (Table 9: Equation 1). When AR (1) is taken to control for autocorrelation, we find that D-W statistics improved and the coefficient of AR (1) is found to be significant. However, among the variables taken, only the coefficient of log of PDI is found to be significant (Table 9: Equation 2). Following Athukorala and Sen's framework, ECM exercise has also been carried out (Table 9: Equation 3).

Table 9: Human Development Index, Young Dependency, Poverty and Household Savings under Alternative Specifications

Equations in level form

Equation 1:

LOGHS = 11.58 + 0.81*LOG(PDI) + 2.61*LOG(HDI) - 2.60*LOG(YDR)
(1.53) (3.31) (1.09) (-0.90)

- 0.06*HDIGR - 0.01*PUBPDI + 0.53*LOG(POVR) + 0.002*RDR
(-1.07) (-0.75) (0.61) (0.57)

Adj. R^2 = 0.99
DW Statistics = 1.10
Mean dependent var 11.07

Equation 2:

LOGHS = 9.16 + 0.76*LOG(PDI) + 2.74*LOG(HDI) - 1.44*LOG(YDR) - 0.02*HDIGR
(0.92) (2.33) (0.87) (-0.39) (-0.47)

- 0.02*PUBPDI + 0.06*LOG(POVR) + 0.002*RDR + 0.50*AR(1)
(-0.96) (0.05) (0.49) (2.61)

Adj. R^2 = 0.99
DW Statistics = 1.93
Mean dependent var 11.14

Where,

HS = Household saving
PDI = Personal Disposable Income
HDI = Human Development Index
PUBPDI = Public Savings to PDI ratio
RDR= Real deposit rate
POVR=Poverty Ratio
YDR=Young Dependency Ratio

(..contd.)

Equation 3: ECM

Following Athukorala and Sen's framework, the variables listed below are considered in an ECM specification.

(1) HSRATE: Household savings rate, measured as percentage of GDP at current market prices.
(2) GY: Rate of growth of personal disposable income (PDI)
(3) RID: Real rate of interest
(4) LY: Per capita disposable income (nominal)
(5) GPOP: Rate of growth of the population
(6) W: Wealth, measured by M3 to personal disposable income (PDI)
(7) BOR: Total lending to households as a ratio of disposable income
(8) INF: Inflation rate
(9) HDI: Human Development Index
(10) HDIGR: Rate of growth of HDI
(11) PR: Poverty ratio
(12) DR: Dependency ratio

The unit root tests, based on Augmented Dicky-Fuller tests, results are presented as follows:

ADF Test Results

Variables	***I(0) or I(1)***
HSRATE	*I(1)*
GY	*I(0)*
RID	*I(0)*
LY	*I(1)*
GPOP	*I(1)*
W	*I(1)*
BOR	*I(1)*
INF	*I(0)*
HDI	*I(1)*
HDIGR	*I(0)*
PR	*I(1)*
DR	*I(1)*

We follow the general to specific modelling procedure of Hendry, as adopted by Athukorala and Sen, and we get the following results after dropping the insignificant variables from the regression (detailed trail runs are placed separately):

$$\underset{}{\Delta HSRATE} = \underset{(2.34)}{0.03} + \underset{(2.18)}{0.13} * GY + \underset{(2.34)}{0.00} * RID_{t-1} - \underset{(-3.23)}{0.00} * INF - \underset{(-2.75)}{0.15} * HSRATE_{t-1}$$

$R^2 = 0.39$, Adj $R^2 = 0.30$, DW = 2.2

Long-run (steady-state) effects on savings rate:

Income growth	0.87
Real interest rate	0.00
Inflation rate	0.00

Results from the above error correction regression frame suggests that while the effects of interest rate and inflation rate on household savings rate are negligible, income growth has perceptible impact on household savings rate.

viii. Effects of Sixth Pay Commission

The possible effects of the award of the Sixth Pay Commission, which is likely to be effective during the eleventh five year plan period, would decrease the public savings and increase the household savings as already evidenced from the effect of the past awards. However, the quantification of this effect is difficult at this stage.

Muhleisen (1997) tried to estimate the degree by which higher public saving would depress private saving through a Ricardian equivalence effect. Judging from the estimated long-run relationship between private and public savings, the offset factor could be as low as 25 to 30 per cent. This estimate was comparable with other studies for developing countries that have found widely varying offset factors, ranging from close to zero to around 50 per cent. Moreover, the author admitted that the short-term error correction mechanism (ECM) from his model is not much insightful. We have tried an ECM using the official series of household savings and public savings and the coefficients were not satisfactory.

We also tried to get an offset coefficient by running a simple OLS. In this case, though we were getting a coefficient of around 0.4 the statistical significance of the coefficient was very low. This is not unexpected given the fact that our sample, which starts from 1970-71, already incorporates the effects of two pay commission awards which are generally like short-term shocks. Therefore, the regression is unable to capture the effects of this shock.

As a result of the Pay Commission awards, some instruments of household financial savings like provident funds and other claims on government are expected to experience a boom. However, this boom is short-lived and expected to go away in two or three years subsequent to the award. The Fifth Pay Commission was set up in 1994 by the Narasimha Rao Government and its award was implemented with effect from January 1, 1996. A close examination of the data from 1996-97 onwards, suggests that the bank deposit experienced a sudden jump in 1997-98 and started declining from the very next year (Table 10). The life insurance funds experienced an increase since 1996-97. The provident and pension fund decreased in the year 1997-98, but moved up during the consequent years. Therefore, it seems that the increase in the financial assets of the households as a result of the Fifth Pay Commission award was initially parked in the bank deposit, which was subsequently channeled to the provident and pension funds. However, the household physical savings continued to increase since the year 1996-97, indicating that the households put a major part of their award money in the physical assets. The growth in personal disposable income was particularly significant in 1996-97, which jumped from 13.3 per cent in the previous year to 18.8 per cent in 1997-98.

A visual examination of the data from 1996-97- the year when the Fifth Pay Commission award became effective- reveals that in 1997-98 the public savings recorded a decrease of 0.4 percentage point while the household savings recorded an increase of 0.6 percentage points (Table10). In 1998-99, the decrease in the public savings was by 2.3 percentage point while the household savings have increased by 1.2 per cent. In 1999-00, the increase in the public savings was by 0.1 percentage point while the household savings have increased by 2.5 per cent. From 2000-01, the effect of the award of the Fifth Pay Commission has tapered off, reflecting the temporary nature of such Pay Commission's award.

Table 10: Household and Public Savings Rates

(Per cent)

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Household Savings	17.4	17.0	17.6	18.8	21.3	21.2
Increment		1.2	0.6	1.2	2.5	
Public Savings	2.0	1.7	1.3	-1.0	-0.9	-1.8
Decrement		(-) 0.3	(-)0.4	(-)2.3	0.1	
Bank Deposit	3.3	3.7	4.8	4.5	4.2	4.5
Provident and Pension Funds	1.9	2.2	2.1	2.6	2.8	2.3
Life Insurance Funds	1.2	1.2	1.3	1.3	1.5	1.6
Physical Saving	8.6	6.3	8.5	9.0	10.7	11.0
PDI Growth Rate	13.7	18.8	11.1	16.7	10.3	

Note: a) Increment/decrement refers to percentage point change over the previous year.
b) The calculation of rates is based on spliced GDPCMP data and may not be strictly comparable to the published data.

From the analysis of Table 10, we see that, on average, if there is a one percentage point decrease in public savings the household savings is expected to increase by 1.0 percentage point. This information can be suitably used in the forecast of household savings once the household savings forecasts are firmed up and the expected decrease in public savings is available.

ix. China's High Savings[2]: In addition, the issue of Chinese high savings was considered by the sub-group because of the public attention that it has drawn. Moreover, if India follows China's high growth path we can expect a similar impact on our savings ratios.

The factors generally cited in the literature like per capita income, demography, etc. explain only part of China's saving. Karaay (2000) found, based on a cross country regression using the LSHS variables, that China's high national saving rate – on average 37 percent between 1978 and 1995, compared to an international average of almost 21 percent – can be partly explained by high growth and, to a lesser extent, favourable demographics. However, even using this relatively rich set of explanatory variables, China's national saving rate was 10 percentage points higher than what would be expected based on China's characteristics. In 2004, China's national saving rate was almost 10 percentage points higher than the average 37 percent between 1978 and 1995, if calculated as the sum of gross capital formation plus the current account balances, as is the case in the empirical studies. Thus, China's national saving in recent years has been 15-20 percent of GDP higher than what would be expected on the basis of these traditional determinants of saving.

Households in China contribute significantly to national saving. The household saving rate, as a share of household disposables income, rose steadily from about 5 per cent before 1978 to over 30 percent in the mod-1990s (Modigliani and Cao, 2004). Thereafter, it declined gently to around 25 percent in 2000, at which it broadly remained since. As a share of GDP, household saving is estimated to have been around 16 percent

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[2] Taken from World Bank Working Paper WPS 3958- 'How will China's Saving-Investment Balance Evolve?' by Louis Kuijs

in recent years. This is significantly more than in OECD countries, but less than in India, the other large developing country undergoing a rapid integration in the world economy. India has much lower overall saving and investment and a quite different sectoral composition of saving, although the delineation between household saving and enterprise saving in India may be more fluid than in China. Household survey data suggest that household saving rates in urban and rural areas were broadly similar: 26 percent in rural areas and 24 percent in urban areas in 2004. Thus, with urban per capita incomes about 3.3 times higher than those in rural areas, total urban saving is over twice as higher as rural saving and investment is in principle available as net financial investment. This balance came down from 14-16 percent of GDP in the mid 1990s to around 10 percent of GDP in recent years. The bulk (over 90 percent) of household's net financial investment is in bank saving deposits.

Enterprise saving from retained earnings constitutes a large and increasing source of saving in China. In recent years, as enterprise saving increased to around 20 percent of GDP, it has overtaken household saving as the largest source of financing.

Government saving is remarkably high compared to other countries, and is much higher than suggested by the headline fiscal data. It is estimated to have been almost 6 percent of GDP in recent years. As a result, the government runs a significant saving-investment surplus, which forms an additional financing source.

To conclude, for the eleventh plan period we may expect some rise in household savings ratios, but given more development of the financial sector, and more use of credit in India, the ratio may be expected to stabilize faster than in China. India’s growth is expected to be driven more by internal demand than was the case in East Asia, because of relatively higher consumption here.

Section V - Methodology followed for the projection

The sub-group's projections are based on the following assumptions:

1. Real GDP would grow at an average annual rate of 7, 8, 8.5 and.9 per cent as per four scenarios of the Approach Paper; and

2. Average annual rate of inflation would be 5.0 per cent as indicated in the 11th Plan Approach Paper.

The methodology to be followed by the Sub-Group was a subject of intensive discussion. In the Group's view, the projections of the household savings – both financial and physical – need to be generated with the help of elasticities of the instrument-wise savings of the household sector with respect to Gross Domestic Product at current market prices (GDPCMP). Couching the instruments' projections based on the elasticities with respect to GDPCMP provides for accounting the preference pattern changes across instruments that occur endogenously in the economy responding to relative returns, growth dynamics as well as policy changes that happen from time to time, especially if one takes such elasticities over different time ranges. For example, covering the recent time period in the regressions would provide short-term elasticity that is expected to capture the recent dynamics of the economy which can be expected to impact on the savings of the economy. The GDPCMP is assumed to contain the information about those dynamics in a more comprehensive manner than any other variables. Using GDPCMP alone is justified as this exercise is conducted in absence of authentic forecast of other explanatory variables in the household savings function, like rates of return for alternative instruments. The Group also felt the necessity of augmenting this method with judgmental approach - especially for instruments like bank deposits, shares and debentures and Claims on Government – so as to take cognizance of the nascent trends that are beginning to emerge as per the preliminary data for 2005-06.

Section VI - Projection of Household Savings for the 11th Plan

On the basis of detailed projections as appended in Statements 1 (A to D), the summary position of instrument–wise household saving projections is provided in Table 11 and Table 12 for the four growth scenarios as indicated in the 11th Plan Approach Paper.

Table 11: Projection of Household Sector Savings for the 11th Plan Period

(Per cent of GDP at CMP)

Item	Actual			Projected for 2007-08 to 2011-12			
	2003-04	2004-05	2005-06	Scenario 1 (Growth 7%)	Scenario 2 (Growth 8%)	Scenario 3 (Growth 8.5%)	Scenario 4 (Growth 9%)
Instruments of Financial Saving							
1. Currency	1.5	1.3	1.5	1.6	1.6	1.6	1.6
2. Bank Deposits@	5.7	5.3	7.8	7.0	7.2	7.2	7.3
3. Non-Bank Deposits	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4. Life Insurance Funds	1.9	2.1	2.4	3.3	3.3	3.4	3.4
5. Provident & Pension Funds	1.9	1.8	1.7	2.3	2.3	2.3	2.3
6. Claims on Government	2.8	3.3	2.5	3.0	3.0	3.0	2.9
7. Shares and Debentures	0.3	0.2	0.8	0.7	0.8	0.8	0.8
8. Units of UTI	-0.2	0.0	-0.2	-0.2	-0.2	-0.2	-0.2
9. Trade Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A. Gross Financial Saving (1 to 9)	**14.0**	**14.1**	**16.7**	**17.7**	**18.0**	**18.1**	**18.3**
B. Financial Liabilities	**2.6**	**3.8**	**5.2**	**6.5**	**6.7**	**6.7**	**6.8**
C. Household (Net) Financial Saving (A-B)	**11.5**	**10.3**	**11.5**	**11.3**	**11.4**	**11.4**	**11.4**
D. Household Physical Saving	**12.0**	**11.7**	**N.A.**	**12.9**	**12.9**	**12.9**	**13.0**
E. Household Saving (C+D)	**23.5**	**22.0**	**N.A.**	**24.1**	**24.3**	**24.3**	**24.4**

N.A. Not Available.

@ Bank Deposits include deposits with commercial banks, co-operative banks and societies and trade debt (net).

Note: The data pertaining to 2003-04 and 2004-05 are sourced from National Accounts Statistics (NAS) 2006, CSO while the data for 2005-06 are sourced from RBI Annual Report 2005-06.

A. Instrument-wise projections for household sector saving in financial assets

The household sector saving in net financial assets is determined by netting the gross financial liabilities from gross financial assets of the household sector.

(i) Gross Financial Assets

A broad assessment of the household saving in different financial instruments was considered necessary to examine the possibility of any shifts in portfolio composition and to obtain a more firmer judgment about the total financial saving of the household sector saving. The household saving in financial assets takes the form of its saving in currency, bank deposits, non-bank deposits, life insurance funds, provident and pension funds, claims on Government, shares and debentures (including units of UTI and other mutual funds and trade debts). The financial liabilities in the form of bank credits, loans and advances from other financial institutions (OFI) and from government are netted out from household's gross financial assets to arrive at the household sector saving in net financial assets.

Table 12: Projection of Household Sector Savings for the Initial and Terminal Years of the 11th Plan Period in the Four Growth Scenarios

(Per cent of GDP at CMP)

Item	Scenario 1 (Growth 7%)			Scenario 2 (Growth 8%)			Scenario 3 (Growth 8.5%)			Scenario 4 (Growth 9%)		
	2007-08	2011-12	Avg.	2007-08	2011-12	Avg.	2007-08	2011-12	Avg.	2007-08	2011-12	Avg.
Instruments of Financial Saving												
1. Currency	1.4	1.7	1.6	1.4	1.8	1.6	1.4	1.8	1.6	1.4	1.8	1.6
2. Bank Deposits	6.2	8.0	7.0	6.2	8.2	7.2	6.2	8.3	7.2	6.3	8.4	7.3
3. Non-Bank Deposits	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4. Life Insurance Funds	2.8	3.8	3.3	2.8	3.9	3.3	2.8	4.0	3.4	2.9	4.0	3.4
5. Provident & Pension Funds	2.1	2.5	2.3	2.1	2.5	2.3	2.1	2.5	2.3	2.1	2.5	2.3
6. Claims on Government	3.1	2.8	3.0	3.1	2.8	3.0	3.1	2.8	3.0	3.1	2.8	2.9
7. Shares and Debentures	0.5	1.1	0.7	0.5	1.2	0.8	0.5	1.2	0.8	0.5	1.2	0.8
8. Units of UTI	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
9. Trade Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A. Gross Financial Saving (1 to 9)	**15.9**	**19.7**	**17.7**	**16.0**	**20.2**	**18.0**	**16.1**	**20.4**	**18.1**	**16.1**	**20.6**	**18.3**
B. Financial Liabilities	**5.3**	**7.8**	**6.5**	**5.3**	**8.1**	**6.7**	**5.4**	**8.3**	**6.7**	**5.4**	**8.5**	**6.8**
C. Household (Net) Financial Saving (A-B)	**10.7**	**11.9**	**11.3**	**10.7**	**12.0**	**11.4**	**10.7**	**12.1**	**11.4**	**10.7**	**12.2**	**11.4**
D. Household Physical Saving	**12.4**	**13.3**	**12.9**	**12.4**	**13.4**	**12.9**	**12.4**	**13.5**	**12.9**	**12.5**	**13.5**	**13.0**
E. Household Saving (C+D)	**23.1**	**25.2**	**24.1**	**23.1**	**25.5**	**24.3**	**23.2**	**25.6**	**24.3**	**23.2**	**25.7**	**24.4**

Avg. Average

1. Bank Related Instruments

Bank related instruments include household sector saving in currency and bank deposits; and other similar instruments in the form of non-bank deposits.

Currency

Using an elasticity coefficient of 1.5, the average currency to GDPCMP ratio is projected to be 1.6 per cent in all the four scenarios, *i.e.,* scenario 1 (with an assumed growth rate of 7%), scenario 2 (with an assumed growth rate of 8%), scenario 3 (with an assumed growth rate of 8.5%) and scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

Bank deposits

Using an elasticity coefficient of 1.597, the average ratio of bank deposits to GDPCMP is projected to be 7.0 per cent under scenario 1 (with an assumed growth rate of 7%), 7.2 per cent under scenario 2 (with an assumed growth rate of 8%), 7.2 per cent under scenario 3 (with an assumed growth rate of 8.5%) and 7.3 per cent under scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

Non-Banking deposits

Using an elasticity coefficient of 0.24, the average ratio of non-bank deposits to GDPCMP is projected to be 0.1 per cent under all the four scenarios during the Eleventh Five Year Plan period.

2. Contractual saving

The contractual saving comprising of life insurance funds and provident and pension funds is known to form a stable proportion of the overall financial saving. Using an elasticity coefficient of 1.7, the ratio of household saving in life insurance funds to GDPCMP is expected to average at 3.3 per cent under scenario 1 (assumed growth rate of 7%), 3.3 per cent under scenario 2 (with an assumed growth rate of 8%), 3.4 under scenario 3 (with an assumed growth rate of 8.5%) and 3.4 per cent under scenario 4 (with an assumed growth rate of 9%) and during the Eleventh Five Year Plan period.

Using an elasticity coefficient of 1.4, the ratio of average household saving in provident and pension funds to GDPCMP is expected to average at 2.3 per cent under scenario 1 (assumed growth rate of 7%), scenario 2 (with an assumed growth rate of 8%), scenario 3 (with an assumed growth rate of 8.5%) and scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

3. Claims on government

Using an elasticity coefficient of 0.765, the ratio of average household saving in claims on government to GDPCMP is expected to be 3.0 per under scenario 1 (assumed growth rate of 7%), scenario 2 (with an assumed growth rate of 8%) and scenario 3 (with an assumed growth rate of 8.5%) and 2.9 under scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

4. Shares, debentures and mutual funds

Capital markets have increasingly become important in channeling household's financial surplus primarily to private corporate sector. Using an elasticity coefficient of 3.0, the household savings in shares and debentures (including mutual funds) as a percentage to GDPCMP is projected to be 0.7 per cent under scenario 1 (assumed growth rate of 7%) and 0.8 per cent under scenario 2 (with an assumed growth rate of 8%), scenario 3 (with an assumed growth rate of 8.5%) and scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

5. Units of UTI

There has been negative accretion to household savings in the units of UTI during the recent years as this instrument is being phased out. The share of this instrument with respect to GDPCMP has been worked out on the basis of three years moving averages. The rate of units of UTI in GDPCMP has been estimated to be -0.2 per cent across all the four scenarios during the Eleventh Five Year Plan period.

6. Trade debt (Net)

The household investments in net trade debts (credits) constitute a small share of GDPMP. This has been estimated again by three years moving averages. The rate of net trade debts to GDPCMP is expected to be 0.0 per cent across all the four scenarios during the Eleventh Five Year Plan period.

Based on the above projections for each of the instruments of the household saving in financial assets, the aggregate saving in the gross financial assets is projected to 17.8 per cent under scenario 1 (with an assumed growth rate of 7%), 18.0 per cent under scenario 2 (with an assumed growth rate of 8%), 18.1 per cent under scenario 3 (with an assumed growth rate of 8.5%) and 18.3 per cent under scenario 4 (with an assumed growth rate of 9%).

(ii) Financial liabilities

Financial liabilities consist of bank advances, loans and advances from other financial institutions, from government and from cooperative societies. The elasticity of financial liability with respect to GDPCMP was estimated to be 1.94. Based on this elasticity, the share of financial liabilities in GDPCMP is expected to average at 6.5 per cent under scenario 1 (with an assumed growth rate of 7%), 6.7 per cent under scenario 2 (with an assumed growth rate of 8%), 6.7 per cent under scenario 3 (with an assumed growth rate of 8.5%) and 6.8 per cent under scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period.

B. Projections for Household Saving in Financial Assets (HSFA)

The household sector saving in net financial assets (HSFA) is obtained by subtracting the household liabilities from gross financial savings of the households. The average rate of household sector saving in net financial assets for the Eleventh Five Year Plan period is projected to be 11.3 under scenario 1 (with an assumed growth rate of 7%), 11.4 under scenario 2 (with an assumed growth rate of 8%), scenario 3 (with an assumed growth rate of 8.5%) and scenario 4 (with an assumed growth rate of 9%).

C. Projections for Household Saving in Physical Assets (HSPA)

Using an elasticity coefficient of 1.16, the average HSPA during the Eleventh Five Year Plan period turns out to be 12.9 per cent under scenario 1 (with an assumed growth rate of 7%), scenario 2 (with an assumed growth rate of 8%) and scenario 3 (with an assumed growth rate of 8.5%), and 13.0 per cent under scenario 4 (with an assumed growth rate of 9%).

D. Projections at the Aggregate Level for Total Household Saving

As discussed earlier, household saving has two broad components viz. saving in physical assets and saving in financial assets. The aggregate household savings (HS) are obtained by adding up these two components. This yields an average household sector saving rate of 24.1 per cent under scenario 1 (with an assumed growth rate of 7%), 24.3

per cent under scenario 2 (with an assumed growth rate of 8%), 24.3 per cent under scenario 3 (with an assumed growth rate of 8.5%) and 24.4 per cent under scenario 4 (with an assumed growth rate of 9%) during the Eleventh Five Year Plan period, i.e., 2007-08 to 2011-12.

Section VII - Limitations of the Exercise

It may be noted that the estimation of household savings, its instruments as well as their future projections, are beset with complexities. Some of them are of the following nature:

1. The household saving would depend on a large number of variables like distribution of income, interest rates, tax policies, demographic profile, saving behavior of different age groups of population, changing preference pattern between physical and financial savings and changing pattern of consumptions, lifestyle, etc.

2. Contractual saving instruments are in a crucial stage of evolution with insurance, provident and pension funds sectors undergoing stages of reforms. Private sector participation in these sectors is being encouraged and these institutions are bringing innovative contractual products to withstand the competition from their rivals. In future, the product and market pattern in contractual savings will undergo a sea change and hence, at this juncture, it is difficult to predict the future trend in these sectors.

3. Further, there is no long-term fiscal policy that provides stability in the tax treatment for these instruments. The evolving fiscal policy and other policies of the government in this respect may change the course of contractual saving. It may be mentioned that 'life insurance fund' part of contractual savings respond significantly to tax incentives as compared with that of the risk factors (IRDA Annual Report, 2003-04).

In nutshell, arriving at a saving estimate is a complex phenomenon. However, an econometric attempt has been made to project the household savings under certain assumptions which may give an approximate idea about the rate and direction of saving as these are essentially based on the past trends and as such, these estimates are essentially "indicative" in nature and to be used/interpreted with great caution.

Section VIII - Summing up

To sum up, there is an increasing trend in gross domestic savings as a proportion of GDP since 2001-02, as the savings ratio increased from 26.5 per cent in 2002-03 to 28.9 per cent in 2003-04 and further to 29.1 per cent in 2004-05. The rise in savings has been witnessed across all the constituent sectors, the sole exception being household sector for 2004-05 which witnessed a decrease form 23.5 per cent in 2003-04 to 22.0 per cent in 2004-05.

Our projections of household financial savings for 2007-08 to 2011-12, under the growth scenarios of 7 to 9 per cent, place the rate of household savings in the range of 24.1 to 24.4 per cent, with household financial and physical savings projected in the ranges of 11.3 to 11.4 per cent and 12.9 to 13.0 per cent, respectively. Keeping the household financial savings at 11.5 per cent of GDP for 2005-06, the Sub-Group's projections point towards the evolving virtuous cycle of growth and savings that appears to be already underway, and importantly, is likely to continue for some years to come on account of the following factors:

First, the odds are loaded heavily in favour of a continuation of the growth momentum observed in the last three years. The Draft Approach Paper for the 11th Plan suggests that the economy can grow between 8 and 9 per cent per year on a sustained basis provided appropriate policies are put in place. With population growing at 1.5 per cent per year, this would ensure that per capita income would double in ten years.

Second, household savings rate will increase with accelerated income growth, particularly with the reinforcement of benign demographic dynamics. With the 'dependency ratio' on the decline and the growth rate on the rise, the proportion of people in the working age group will not only be higher but will also have much higher incomes to save from than the preceding generations.

Third, the ‘demographic dividend’ will also pay off in terms of a larger and younger labour force gainfully employed in production, and generating a larger national income, particularly in a world where many countries are transiting to ageing societies.

Fourth, financial sector liberalization being one of the components of economic reform packages that have been implemented especially to enhance medium to long-term growth, is expected to further deepen the financial sector and increase the savings mobilization by providing incentives and avenues for wealth holders to shift the composition of their wealth portfolios from non-reproducible tangible assets to reproducible tangible assets and financial assets, which are more liquid and directly available for investment purposes.

Finally on the front of human development and poverty, as per the United Nations Development Programme’s (UNDP) Human Development Reports, the value of the Human Development Index (HDI) – a composite indicator based on income, education and health – has increased consistently over the years. This augurs well for the household savings.

Statement 1A: Projection of Household Sector Savings for the XIth Plan Period (Assumed Growth Rate 7%)

	2007-08	2008-09	2009-10	2010-11	2011-12	Total	Average Rates
A. Gross Financial Saving (1 to 9)	**711693**	**843482**	**998381**	**1185308**	**1410991**	**5149854**	**17.7**
s percent of GDP at current market prices	**15.9**	**16.8**	**17.7**	**18.6**	**19.7**		
1. Currency	62389	74087	87978	104474	124063	452993	1.6
As percent of GDPCMP	1.4	1.5	1.6	1.6	1.7		
2. Bank Deposits	275363	330318	396241	475321	570184	2047427	7.0
As percent of GDPCMP	6.2	6.6	7.0	7.5	8.0		
3. Non-Bank Deposits	3688	3798	3912	4030	4150	19578	0.1
As percent of GDPCMP	0.1	0.1	0.1	0.1	0.1		
4. Life Insurance Funds	125060	151635	183858	222927	270299	953780	3.3
As percent of GDPCMP	2.8	3.0	3.3	3.5	3.8		
5. Provident Funds	92072	108185	127117	149363	175502	652239	2.3
As percent of GDPCMP	2.1	2.2	2.2	2.3	2.5		
6. Claims on Government	140547	153987	168712	184845	202521	850614	3.0
As percent of GDPCMP	3.1	3.1	3.0	2.9	2.8		
7. Shares and Debentures	21366	29378	40395	55543	76372	223055	0.7
As percent of GDPCMP	0.5	0.6	0.7	0.9	1.1		
8. Units of UTI	-8507	-7548	-9422	-10755	-11590	-47821	-0.2
As percent of GDPCMP	-0.2	-0.2	-0.2	-0.2	-0.2		
9. Trade Debt	-286	-360	-412	-442	-510	-2011	0.0
As percent of GDPCMP	0.0	0.0	0.0	0.0	0.0		
B. Financial Liabilities	**234627**	**291521**	**362211**	**450042**	**559170**	**1897571**	**6.5**
As percent of GDPCMP	5.3	5.8	6.4	7.1	7.8		
C.Household (Net) Financial Saving (A-B)	**477065**	**551961**	**636170**	**735266**	**851821**	**3252283**	**11.3**
As percent of GDPCMP	10.7	11.0	11.2	11.6	11.9		
D. Household Physical Saving	**553757**	**634259**	**726464**	**832073**	**953035**	**3699587**	**12.9**
As percent of GDPCMP	12.4	12.6	12.8	13.1	13.3		
E. Household Saving (C+D)	1030822	1186220	1362634	1567339	1804856	6951870	**24.1**
As percent of GDPCMP	**23.1**	**23.6**	**24.1**	**24.6**	**25.2**		

Statement 1B: Projection of Household Sector Savings for the XIth Plan Period (Assumed Growth Rate 8%)							
	2007-08	2008-09	2009-10	2010-11	2011-12	Total	Average Rates
A. Gross Financial Saving (1 to 9)	**729168**	**875099**	**1049215**	**1262159**	**1522841**	**5438482**	**18.0**
As percent of GDP at current market prices	**16.0**	**17.0**	**17.9**	**19.0**	**20.2**		
1. Currency	63975	76930	92509	111242	133768	478424	1.6
As percent of GDPCMP	1.4	1.5	1.6	1.7	1.8		
2. Bank Deposits	282741	343684	417762	507807	617260	2169253	7.2
As percent of GDPCMP	6.2	6.7	7.1	7.6	8.2		
3. Non-Bank Deposits	3705	3825	3949	4077	4209	19764	0.1
As percent of GDPCMP	0.1	0.1	0.1	0.1	0.1		
4. Life Insurance Funds	128591	158103	194388	239000	293850	1013932	3.3
As percent of GDPCMP	2.8	3.1	3.3	3.6	3.9		
5. Provident Funds	94280	112098	133285	158476	188428	686566	2.3
As percent of GDPCMP	2.1	2.2	2.3	2.4	2.5		
6. Claims on Government	142517	157235	173474	191389	211155	875771	3.0
As percent of GDPCMP	3.1	3.0	3.0	2.9	2.8		
7. Shares and Debentures	22309	31344	44038	61873	86931	246494	0.8
As percent of GDPCMP	0.5	0.6	0.8	0.9	1.2		
8. Units of UTI	-8658	-7751	-9761	-11241	-12222	-49634	-0.2
As percent of GDPCMP	-0.2	-0.2	-0.2	-0.2	-0.2		
9. Trade Debt	-291	-370	-427	-462	-538	-2088	0.0
As percent of GDPCMP	0.0	0.0	0.0	0.0	0.0		
B. Financial Liabilities	**242011**	**305390**	**385367**	**486288**	**613640**	**2032696**	**6.7**
As percent of GDPCMP	5.3	5.9	6.6	7.3	8.1		
C.Household (Net) Financial Saving (A-B)	**487157**	**569709**	**663849**	**775871**	**909201**	**3405787**	**11.4**
As percent of GDPCMP	10.7	11.0	11.3	11.7	12.0		
D. Household Physical Saving	**565060**	**653776**	**756422**	**875183**	**1012590**	**3863031**	**12.9**
As percent of GDPCMP	12.4	12.7	12.9	13.2	13.4		
E. Household Saving (C+D)	1052217	1223485	1420270	1651054	1921791	7268818	**24.3**
As percent of GDPCMP	**23.1**	**23.7**	**24.2**	**24.8**	**25.5**		

Statement 1C: Projection of Household Sector Savings for the XIth Plan Period (Assumed Growth Rate 8.5%)							
	2007-08	2008-09	2009-10	2010-11	2011-12	Total	Average Rates
A. Gross Financial Saving (1 to 9)	**737991**	**891218**	**1075393**	**1302143**	**1581646**	**5588390**	**18.1**
As percent of GDP at current market prices	**16.1**	**17.0**	**18.0**	**19.2**	**20.4**		
1. Currency	64776	78379	94838	114754	138853	491600	1.6
As percent of GDPCMP	1.4	1.5	1.6	1.7	1.8		
2. Bank Deposits	286467	350500	428845	524702	641985	2232499	7.2
As percent of GDPCMP	6.2	6.7	7.2	7.7	8.3		
3. Non-Bank Deposits	3713	3838	3967	4101	4238	19858	0.1
As percent of GDPCMP	0.1	0.1	0.1	0.1	0.1		
4. Life Insurance Funds	130376	161405	199819	247376	306252	1045228	3.4
As percent of GDPCMP	2.8	3.1	3.4	3.6	4.0		
5. Provident Funds	95393	114090	136452	163196	195182	704313	2.3
As percent of GDPCMP	2.1	2.2	2.3	2.4	2.5		
6. Claims on Government	143507	158876	175892	194730	215586	888591.4	3.0
As percent of GDPCMP	3.1	3.0	2.9	2.9	2.8		
7. Shares and Debentures	22787	32358	45949	65247	92651	258992	0.8
As percent of GDPCMP	0.5	0.6	0.8	1.0	1.2		
8. Units of UTI	-8735	-7854	-9935	-11491	-12549	-50563	-0.2
As percent of GDPCMP	-0.2	-0.2	-0.2	-0.2	-0.2		
9. Trade Debt	-294	-375	-434	-472	-553	-2128	0.0
As percent of GDPCMP	0.0	0.0	0.0	0.0	0.0		
B. Financial Liabilities	**245746**	**312486**	**397352**	**505267**	**642490**	**2103341**	**6.7**
As percent of GDPCMP	5.4	6.0	6.7	7.4	8.3		
C.Household (Net) Financial Saving (A-B)	**492245**	**578732**	**678041**	**796876**	**939156**	**3485049**	**11.4**
As percent of GDPCMP	10.7	11.1	11.4	11.7	12.1		
D. Household Physical Saving	**570754**	**663683**	**771744**	**897398**	**1043512**	**3947090**	**12.9**
As percent of GDPCMP	12.4	12.7	12.9	13.2	13.5		
E. Household Saving (C+D)	1062999	1242415	1449784	1694274	1982668	7432139	**24.3**
As percent of GDPCMP	**23.2**	**23.8**	**24.3**	**24.9**	**25.6**		

Statement 1D: Projection of Household Sector Savings for the XIth Plan Period (Assumed Growth Rate 9%)							
	2007-08	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**	**Average Rates**
A. Gross Financial Saving (1 to 9)	**746869**	**907546**	**1102087**	**1343194**	**1642444**	**5742140**	**18.3**
As percent of GDP at current market prices	**16.1**	**17.1**	**18.2**	**19.3**	**20.6**		
1. Currency	65581	79845	97212	118355	144097	505090	1.6
As percent of GDPCMP	1.4	1.5	1.6	1.7	1.8		
2. Bank Deposits	290218	357405	440147	542044	667531	2297345	7.3
As percent of GDPCMP	6.3	6.7	7.3	7.8	8.4		
3. Non-Bank Deposits	3722	3852	3986	4124	4268	19952	0.1
As percent of GDPCMP	0.1	0.1	0.1	0.1	0.1		
4. Life Insurance Funds	132172	164752	205364	255986	319086	1077360	3.4
As percent of GDPCMP	2.9	3.1	3.4	3.7	4.0		
5. Provident Funds	96513	116105	139674	168028	202138	722458	2.3
As percent of GDPCMP	2.1	2.2	2.3	2.4	2.5		
6. Claims on Government	144500	160529	178336	198117	220094	901575.7	2.9
As percent of GDPCMP	3.1	3.0	2.9	2.9	2.8		
7. Shares and Debentures	23271	33394	47921	68767	98680	272034	0.8
As percent of GDPCMP	0.5	0.6	0.8	1.0	1.2		
8. Units of UTI	-8812	-7957	-10110	-11745	-12883	-51507	-0.2
As percent of GDPCMP	-0.2	-0.2	-0.2	-0.2	-0.2		
9. Trade Debt	-296	-380	-442	-483	-567	-2168	0.0
As percent of GDPCMP	0.0	0.0	0.0	0.0	0.0		
B. Financial Liabilities	**249509**	**319692**	**409616**	**524834**	**672461**	**2176111**	**6.8**
As percent of GDPCMP	5.4	6.0	6.8	7.6	8.5		
C.Household (Net) Financial Saving (A-B)	**497361**	**587854**	**692471**	**818360**	**969984**	**3566029**	**11.4**
As percent of GDPCMP	10.7	11.1	11.4	11.8	12.2		
D. Household Physical Saving	**576476**	**673690**	**787297**	**920062**	**1075216**	**4032741**	**13.0**
As percent of GDPCMP	12.5	12.7	13.0	13.2	13.5		
E. Household Saving (C+D)	1073837	1261544	1479768	1738422	2045199	7598770	**24.4**
As percent of GDPCMP	**23.2**	**23.8**	**24.4**	**25.0**	**25.7**		