

Chapter: 2

Definitional Aspects, Behaviour and Composition of Savings

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Definitional Aspects, Behaviour and Composition of Savings

Saving is the process of setting aside a portion of current income for future use, or, the resources accumulated in this way over a given period of time.

Saving is defined as the act of abstaining from current consumption. It is also the first of the three sequential acts of capital formation, the subsequent two being *finance* and *investment*. How much individuals save is affected by their preferences for future over present consumption and their expectations of future income. If individuals consume more than the value of their income, then their saving is negative and they are said to be dissaving.

Individual saving may be measured by estimating disposable income and subtracting current consumption expenditures. A measure of business saving is the increase in net worth shown on a balance sheet. Total national saving is measured as the excess of national income over consumption and taxes. Saving is important to economic progress because of its relation to investment. An increase in productive wealth requires that some individuals abstain from consuming their entire income and make their savings available for investment.

The idea of savings had an evolution during the 19th century, which stressed the role of the profit rate as a primary cause variable for business savings. The literature proceeded from Smith to Ricardo to Mill, as the standard classical doctrine. Marshall, however, did not follow this line of thought. Although Marshall's description of savings was couched in the use of the term 'abstinence', he used this term differently, focussing on the 'waiting' involved as the sacrifice of not consuming in the current period, since rich people did not experience any real pain from saving, as the term 'abstinence' seemed to imply. Thus, Marshall chose the implicit 'demand price of accumulation', a subjective opportunity cost for an individual, as the necessary cost of waiting. So, Marshall's view was that savings,

like all other objects of choice, was based on a conscious personal sacrifice [Gootzeit, 1995].

Saving has various dimensions to it. It is not only important for taking care of current transactions and payments, for making speculative gains, or for precautionary considerations. But saving decisions are driven by several other motives too, like the need to build up assets to finance consumption after retirement, the desire to leave bequests to a subsequent generation, and saving for acquisition of tangible assets. Saving for retirement is generally considered quantitatively the most important saving motive. In addition to these, there is also a long-term development motive attached to savings. Savings are needed for long-term investments and infrastructure development which serve as the base for rapid economic growth.

The Indian savings experience has been marked by varied oscillations since the advent of planning in India. Over the past five and a half decades, India's comparatively high domestic saving rate has followed an upward, but uneven course, accompanied by waves of low and high savings. Post-independence, private saving has accounted for the lion's share in total domestic saving whereas the public sector experienced a gradual decline in savings, the early eighties onwards. In the national pool of savings, the household sector is the most important contributor. The share of the private corporate sector has been quite low while that of the public sector has been declining. The public sector started dissaving by the turn of the nineties.

In the light of the Indian saving scenario, it is imperative to undertake a survey and a detailed analysis of the trend, behaviour and composition of savings in India.

The present chapter has been divided into three sections. The *first section [2.1]* covers the concepts of saving, the classification of gross domestic saving into its components and their definitions based on the national accounts literature prepared by the Central Statistical Organisation [CSO]. It also includes a brief review of the issues and problems involved in the estimation and measurement of savings related data. In the *second section [2.2]* of the chapter, time series data has been used to

trace the general behaviour, trend and composition of gross domestic saving and its components. This is followed by an international comparison of saving rates across the globe. In the *last section [2.3]*, an attempt is made to explore the existing literature and historical facts in order to identify the factors influencing the saving behaviour in India.

2.1 Definitional Aspects of Saving

Saving has been defined in many ways. According to Joshi [1972], saving is considered not merely as a residual of unspent income but as a regular feature of positive action. Irwin Friend defined saving as increase in all assets less increase in all liabilities. From a business point of view, saving is treated as earned surplus, while the classicals define saving as all income not spent on goods and services which are used for current consumption. Actually, the idea of saving is quite simple. Saving is that part of disposable income which is not consumed. Therefore, saving equals personal disposable income minus consumption.

The United Nations System of National Accounts [1968] has described 'saving' as the excess of disposable income over expenditure on the final consumption of goods and services. Saving is thus considered as the balancing item on the income and outlay accounts of resident units after all their current receipts and disbursements are taken account of. The concept emphasises the current nature of receipts and payments, thus ruling out the inclusion of flows out of past assets or future liabilities.

There are various concepts and definitions of saving and its components, each one of which have to be dealt with individually. Particular attention has to be given to the way savings are estimated; and different issues involved in the study of savings such as issues relating to data estimation, problems related to the measurement of saving, and so on.

2.1.1 Concepts of Saving

Savings can be measured in a number of ways. It can be measured as:

- a. Domestic and National Savings
- b. Net and Gross Savings
- c. Nominal and Real Savings

a. Domestic and National Savings

On subtracting retained earnings of foreign companies in India from the aggregate savings of the domestic economy, we get 'national' savings.

$$\begin{aligned} \text{National Savings} &= \text{Aggregate Domestic Savings} - \text{Retained Earnings of Foreign} \\ &\quad \text{Companies in India} \\ &= \text{Aggregate Domestic Savings} - \text{Net Foreign Capital Inflows} \\ &\quad \text{from Abroad} \end{aligned}$$

The RBI treats retained earnings of foreign companies in India as part of the inflow of foreign resources. Therefore, the saving estimates provided by RBI can be taken as national savings. The CSO, however, includes the savings of such companies under the private corporate sector on the principle of end-use of funds so generated. In that sense, it is considered as part of domestic savings. Normally, retained earnings of branches of foreign companies in India are reinvested within the country. Hence, it is not appropriate to treat them as an inflow of foreign resources as the RBI does. The ownership of savings is immaterial and what is important is the end-use of savings. The CSO's approach is correct in this sense [Pandit, 1991].

b. Net and Gross Savings

Savings can also be measured as 'net' or 'gross' savings. The difference between gross and net measures of saving is the consumption of fixed capital. As the total stock of capital depreciates in the process of production over time, a part of the annual saving goes into replacing and replenishing the capital stock. It is only the remaining part or the net saving which is available for fresh capacity addition. Capital consumption allowance being merely a book entry is as much a part of the current surplus of a business unit as other reserves. Studies by Raj [1970] and Pandit

[1991] considered gross saving as the correct measure of saving and that net saving is an underestimation of the true saving effort.

Joseph [1997] emphasised that in India, the trends in net domestic saving have been more adverse than those in the gross domestic saving as the element of depreciation has been steadily rising over time. This was particularly found to be in the case of public sector where the consumption of fixed capital was so high that the net domestic saving for this sector turned negative. Therefore, there is the need to substantially raise the gross saving rate of the country. In another study, Rakshit [1982] measured savings in terms of net domestic saving ratio. Thus, there is no consensus on the measure of saving to be used. Most of the studies on savings, such as Raj [1970], Pandit [1991], RBI studies by Bose [1994] and Ray and Bose [1997], an IMF study by Muhleisen [1997], Sinha [1999, 2000] and Mavrotas and Kelly [2001] have measured saving in gross terms. In the present study, we also prefer to use the 'gross' concept of saving.

c. Nominal and Real Savings

Savings can also be measured as 'nominal' or 'real' savings. To arrive at 'real' savings, the current savings have to be deflated for inflation. According to the United Nations System of National Accounts [1968, 1979], savings are normally estimated at current prices. Depending on the variable to which saving has to be related, an appropriate deflator for aggregate savings is used. However, an appropriate deflator for savings is hard to determine. First, because savings flow is a 'value aggregate' that cannot be decomposed into quantity and price counterparts. Secondly, the concept of saving involves various differences between income and consumption; consumption foregone; finances for investment, etc., all of which have separate deflators. It is also possible that deflators for household saving in financial assets are different from those for household saving in physical assets. Even so, some private estimates of savings at constant series have been attempted using separate deflators for different components of saving [Shetty (1990), Ray and Bose (1997)].

Although one may have a strong reason for choosing to work with ‘domestic’ rather than ‘national’ savings, there are no compelling reasons for a clear choice between ‘net’ and ‘gross’ savings or between ‘nominal’ and ‘real’ savings. The choice may however be clear in a particular context and would depend on the specific variables to which savings are being related.

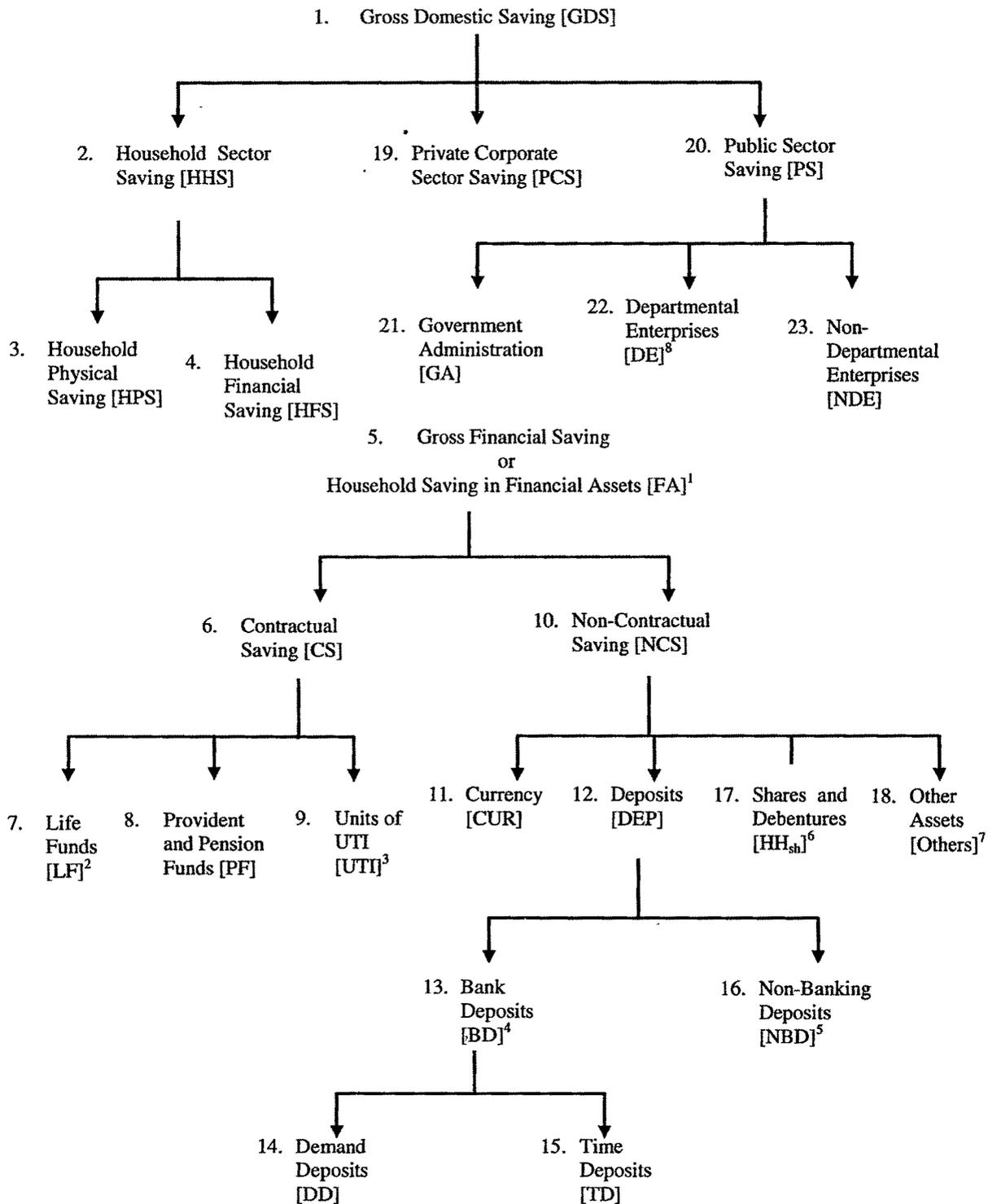
The measure of saving that we will be using throughout the study is ‘Gross Domestic Saving’ at nominal prices.

2.1.2 Saving Classification and Definitions

Gross domestic saving can be disaggregated into various components. The components of gross domestic saving are capable of further divisions and subdivisions into a variety of saving assets both financial and non-financial. The Central Statistical Organisation [CSO] is the agency that compiles and computes macro data related to savings. We have made an effort at defining saving and its components based on the System of National Accounts [SNA]. The following chart clearly reveals the basic structure and components of gross domestic saving.

Chart : 1

Saving Composition



Notes :

1. The difference between Household Financial Saving [HFS] and Household Saving in Financial Assets [FA] is the Financial Liabilities of the Household Sector [FL], as $HFS = FA - FL$. In the national accounts estimates, it is FA which is decomposed into savings in various financial assets and not HFS.
 2. Includes State Government's and postal insurance funds.
 3. As UTI came into existence in 1964 only, saving estimates in UTI units are available 1964 onwards.
 4. Bank deposits include deposits with banks, co-operative banks and societies and also compulsory deposits with RBI under the Compulsory Deposits [additional emoluments and income-tax payers] Schemes, 1974.
 5. In the national accounts estimates prepared by CSO, non-banking deposits are treated as loans to companies.
 6. Includes investment in shares and debentures of private corporate business, co-operative banks and societies, bonds of public sector undertakings and mutual funds other than UTI.

As quoted in Muhleisen's article [1997], mutual funds is an item of contractual savings. However, in the data source for the current study [National Accounts Statistics of India, EPWRF], mutual funds have been included in shares and debentures. As such it appears under non-contractual savings in the chart.
 7. Claims on government not being a very significant component of gross financial saving is included with the estimates of other small saving assets.
 8. In the present study, for analysis purpose, we have added together the savings of government administration and departmental enterprises. Hence, $PS = GADE + NDE$.
 9. Definitional aspects have been referred largely from National Accounts Statistics of India [EPWRF] issues and Pandit [1991].
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Let us discuss the classification of GDS and definitions of saving components one by one.

The economy is divided into three broad institutional sectors, namely, the Household Sector, the Private Corporate Sector and the Public Sector. This classification has been guided by certain norms based on the motivations and social roles of individual entities, the needs of policy-making, the economic circumstances and institutional arrangements within the country, and the availability of data.

Gross Domestic Saving [GDS] is the sum of savings in the *Household Sector* [HHS], *Private Corporate Sector* [PCS] and *Public Sector* [PS]. The household and private corporate savings together constitute what is called as *Private Savings* [Pvt.S]. Alternatively, domestic savings can be derived as the sum total of private and public savings.

Household sector comprises all individuals, non-government, non-corporate enterprises, like sole proprietorships and non-profit institutions engaged in farm and non-farm activities which furnish educational, health, cultural, recreational and other

social and community services to households. The household sector is thus the unorganised sector.

In India, households are the largest contributors to the national pool of savings. Saving by a household is a two-step decision. The first step relates to the magnitude of savings [i.e. how much to save]; and the second step relates to the form in which savings are held. The latter is a two-tier problem [Bose, 1994]. Firstly, the household allocates its savings between financial claims and physical assets. After this, decision relating to the distribution of financial savings among alternative financial assets is undertaken.

Saving of the households comprise of *Household Physical Saving* [HPS] and *Household Financial Saving* [HFS]. Physical assets include construction, machinery, equipments including breeding stock, draught animals, dairy cattle, and the like and stocks held by individual firms and other institutions constituting the household sector. Estimation of household physical saving is based on the residual approach. Capital formation by households is assumed to be equal to estimated Gross Domestic Capital Formation [GDCF] minus capital formation estimated for corporate and government sectors. This residual share of gross capital formation attributable to the household sector is taken as identical to household saving in physical [non-financial] assets.

Household financial saving is the other component of household saving. It refers to financial saving net of financial liabilities. Household financial saving is defined as increases in financial asset holdings over the increases in financial liabilities each year. The procedure of estimation of household financial saving is similar to that of its counterpart, household physical saving. It is estimated by using the residual method.

Household Saving in Financial Assets [FA] is also referred to as Gross Financial Savings. It is the sum total of Household Financial Saving [HFS] and Financial Liabilities of the household sector [FL]. The household sector saving in financial assets is estimated instrument-wise. The instruments being currency, deposits, shares

and debentures, claims on government in the form of government securities and small savings and other assets, life insurance funds, provident and pension funds, and units of UTI. The items of financial liabilities are the household sector's borrowings from banks and non-bank finance companies. For statistical and data specification purposes, it is important to note that the total of financial savings by instruments yields gross financial saving [FA].

Gross financial saving can be disaggregated into saving in contractual and non-contractual financial instruments. The disaggregation of gross financial saving into *Contractual Saving* [CS] and *Non-Contractual Saving* [NCS] is on the premise that unlike the latter, the former has elements of compulsion and substitutions associated with it. Contractual savings are long-term savings involving a definite, continuous commitment on the part of the savers, once decision to save is made. Any premature discontinuance of such long-term commitments to save would lead to heavy economic losses. These costs in case of other financial investments are negligible. For this reason, contractual savings tend to be relatively stable. The division of gross financial saving into contractual and non-contractual savings is also important from the following viewpoints, especially in the Indian context.

- i. Contractual saving occupies a crucial position in household budgeting directed towards long-term goals: acquisition of a house and major consumer durable goods, protection against emergencies and provision for a comfortable retirement [Joshi, 1972]. Contractual savings are thus guided by old-age security and precautionary motives, besides being necessitated by employment regulations. Saving in this form becomes a commitment on the part of the subscriber and the rate of return on it ceases to be the main consideration.
- ii. As the contractual savings are long-term in nature, on one hand they are useful in long-term financing for investment like infrastructure which is urgently needed for Indian growth or for buying negotiable securities on the other.

- iii. Another reason emphasising the growth of contractual saving is that these are managed by big institutions. These institutions specialise in creating financial instruments which meet the needs of different savers in terms of safety, liquidity and profitability.

Contractual savings are largely in the form of *Life Funds* [LF], *Provident and Pension Funds* [PF] and *Units of the Unit Trust of India* [UTI]. Contractual saving of a household is primarily a function of its income.

Life funds include life insurance, postal insurance and state insurance funds. Life funds are a long-term commitment and guarantees financial cover for contingencies like death and disability. It provides protection against casualty. Savings in insurance premia are specified as a function of the disposable income.

Households also save contractually in provident and pension funds. Provident and pension funds pertain to several individual schemes covering employees of central and state governments, local authorities, non-financial statutory corporations, financial institutions/banks, educational institutions, industrial factories/establishment [under Employees' Provident Fund Act, 1952], coal mines, Assam tea plantations, seamen, port trusts, dock labour boards, in addition to the public provident fund [PPF] scheme.

Savings in insurance premia and provident funds are taken as inclusive of loans that the subscribing households may take from these funds. Both provident fund and insurance premia payments have an element of irreversibility. Household investment in the units of UTI [Unit Trust of India] is yet another important component of contractual financial saving. Units of the Unit Trust are saleable assets and involve a short-term commitment.

Non-contractual savings are in the form of *Currency* [CUR], *Deposits* [DEP] including bank and non-bank deposits, *Household Investment in Shares and Debentures* [HH_{sh}], and *Claims on Government Securities and Other Assets* [Others].

Currency held by households is the most liquid form of household financial savings. Currency is a flow item. The currency component of non-contractual saving is obtained as a residual from the total currency with the public after deducting the amount held by the private corporate sector; co-operatives [excluding cooperative banks] and general insurance corporations and their subsidiaries; government companies, statutory corporations, railways and central and state treasuries; and local authorities and port trusts.

Currency held by the public includes notes in circulation, rupee coins in circulation, small coins in circulation and cash with banks. The cash balances under household financial saving are not available to the rest of the economy as they are held by the households themselves to meet their own transaction, precautionary and speculative demands.

Deposit is yet another important constituent of non-contractual financial savings. Deposits are made up of *Bank Deposits* [BD] and *Non-Banking Deposits* [NBD]. Bank deposits include deposits with banks; and deposits with co-operative banks and societies. Bank deposits further comprise of *Demand Deposits* [DD] and *Time Deposits* [TD]. Unlike the former, time deposits guarantee an assured income from interest. Non-banking deposits refer to the loans to companies. Household saving in non-banking deposits include deposits of financial / non-financial government / non-government companies as well as of electricity boards.

Household savings in shares and debentures cover all kinds of household investment in shares and debentures of private corporate business; co-operative banks and societies; bonds of public sector undertakings; and mutual funds [other than UTI]. Household investment in shares and debentures is derived as a residual after deducting intra-sectoral investments and investments by all other sectors from total investment in shares and debentures. Shares and securities offer opportunities for capital gains.

The last component of non-contractual saving referred to as 'Others' includes all other remaining assets in which households save [or, Trade Debt Net] and also savings in the form of government securities. Claims on government consist of

heterogeneous variables such as investment in government securities, in small savings of households, in special bearer bonds, compulsory deposits and annuity deposits. Small savings comprise of national saving certificates, post office savings bank deposits and cash certificates, treasury savings deposit certificates and annuity deposits. Various kinds of prize bonds and deposits under the Compulsory Deposit Scheme [1974] also form part of small savings. Household investment in small savings is derived by deducting from its total, the share of such investments in small savings as are made by local authorities and provident fund organizations.

Apart from the household sector, another important institutional unit in the economy is the private corporate sector. The private corporate sector comprises all non-governmental financial/non-financial corporate enterprises and co-operative institutions. Non-government non-financial enterprises include public and private limited companies registered under the Indian Joint Stock Companies Act, 1956. Non-government financial institutions constitute all scheduled and non-scheduled commercial banks in the private sector and other financial and investment companies. Co-operative institutions include all co-operative banks and co-operative credit and non-credit societies. As in other developing nations, in India too, private corporate savings play a minor role. On the contrary, in developed nations, the corporate sector contributes significantly to national savings.

The CSO estimates private corporate saving on the basis of RBI sample of company finances. The gross saving of public and private limited companies in the private sector [including those of foreign-controlled rupee companies] is taken as equivalent to the retained profits [excluding non-operating surplus/deficit] gross of depreciation provision. These sample estimates are then blown up to obtain savings of the private corporate sector as a whole. The blow-up factor for both corporate sector saving and capital formation is the paid-up capital calculated as the ratio of total paid-up capital in all companies to the total paid-up capital of the sample companies.

The public sector covers public authorities like government administration, departmental enterprises, and non-departmental enterprises comprising government companies, statutory corporations and port trusts. Government savings form the second important source of domestic savings in the economy. Therefore, public

savings is the summation of savings from the *Government Administration* [GA], *Departmental Enterprises* [DE] and *Non-Departmental Enterprises* [NDE]. The gross saving of government administration and departmental enterprises is defined as the excess of current receipts over current expenditures. This is derived from the economic classification of the budgets of central and state governments' local bodies. The issue department of the RBI, which is considered to be more akin to administrative activities of the government, is also included here. The RBI is thus bifurcated into issue and banking departments, the latter being part of non-departmental undertakings.

The gross saving of the non-departmental enterprises [except the LIC and the issue department of the RBI] is estimated from the results of the analysis of annual accounts of these companies and corporations. The gross saving is obtained as aggregate of transfer to certain reserves, profits and retained earnings from profit and loss and appropriation accounts to the balance sheet, duly adjusted for expenditure/income relating to previous years. The gross saving of the banking department of the RBI is estimated as the sum of annual changes in various long-term and stabilisation funds established by the Bank [CSO, 1989].

In developing countries, government savings are especially needed to finance the building of transport facilities and the establishment of public utilities and infrastructure that are a pre-requisite to economic development. In a number of countries, they are also needed to compensate for the lack or inadequacy of private investment in the business sector.

The private corporate sector and public sector constitute the organised segment of the economy while the residual household sector is the unorganised segment. In the flow-of-funds accounts, public and private corporate sectors are the net borrowers while the household sector is the net lender. Surplus financial savings of the household sector go to finance the deficits of public and private corporate sectors. Hence, it is the household sector which has been successfully bridging the gap between the 'uses' and 'sources' of the government and private corporate sectors over time.

2.1.3 Data Issues

Saving data are generally calculated in questionable ways, mostly as residuals of other macro economic variables. To that extent, the errors in the related variables are passed on to saving data estimations. There is considerable variation in saving estimates obtained from alternative sources of data and different methods of estimation.

Some of the problems that have been found to be typically plaguing data on saving are:

- i. Expenditure leakages and over or under estimation of the costs of public sector projects.
- ii. Snags in the blow-up factors used in the estimation of private corporate sector savings [the latter being based on sample studies compiled by the RBI].
- iii. The sample of private and public limited companies undertaken by the RBI may not be representative of the entire Indian corporate sector.
- iv. Absence of accounts of several private limited companies as also those of non-departmental enterprises of the government.
- v. There are measurement errors in the GDCF estimates arising out of the method of estimation. This is majorly due to unreliable estimates of domestic production in the unregistered manufacturing sector. Secondly, while the estimates of *pucca* construction is quite reliable, it is not so in case of *kutchha* construction as most of it occurs in the unorganised manufacturing sector and in the agricultural sector, where data are often deficient and inaccurate.

These errors directly flow on to the estimates of household investment [which is determined residually] and to household physical saving, which is taken to be equivalent to household investment.

- vi. The CSO estimates of saving ignore some of the traditionally sought after saving tools in India, like jewellery and gold in case of household physical savings. This further increases the likelihood of measurement error in this category of saving.
- vii. The highly heterogeneous nature of the household sector affects the quality of saving estimates of this sector. Most of the financial assets held by households constitute the financial savings of household proper, while the financial liabilities constitute borrowings by the unincorporated enterprises and farm households. Thus, the actual financial saving estimate would be an underestimate of the true financial saving in the economy.

All of these errors in saving and capital formation estimates eventually creep into the measures of household sector saving which is treated as a residual in the accounting procedure. Consequently, gross domestic saving which is estimated as the sum of total household, private corporate and public savings is subject to estimational errors to that extent.

Despite the misgivings of the Indian saving and investment data, the CSO has by and large followed a uniform methodology in preparing these estimates. The data can therefore, be used in econometric analysis on the assumption that the degree of errors and biases in the estimates are constant over time. Indeed, in the developing world, India is one of the few countries for which reasonably consistent saving and investment estimates are available for a period of sufficient length as required for econometric analysis.

[For details, refer various issues of National Accounts Statistics of India (EPWRF), Muhleisen (1997), and Athukorala and Sen (2002)].

As saving data are determined by the residual approach, to the extent that saving components such as household saving, private corporate saving, and public saving are subject to estimational errors, the errors get incorporated in gross domestic saving data as well. Nonetheless, these errors inherent in the saving and investment estimates are constant over time and besides the saving data are much more reliable

than those of investment. Hence, the use of time series data on savings would be useful in a meaningful analysis of our subject.

In the period following the independence, the general trend in the GDS/GDP ratio has been an upward-rising one, however accompanied with many fluctuations over time. Besides, there have been major changes in the composition of saving as well, accompanied by shifts and substitutions within and between the saving components. All this calls for an in-depth study of the behaviour, trend and composition of saving which would be our subject of study in the present chapter.

2.2 Trend and Composition of Saving

This part of the chapter attempts to analyze the overall trends and behaviour of GDS and each one of its components. It also studies the composition of GDS and its components. This section undertakes the study of the trend behaviour of saving, composition of saving and an international comparison of saving.

This analysis covers a time period beginning with economic planning in 1950-51 up to 2003-04. At the time of undertaking the study of trend and composition of savings, the saving data were available for the old series [Base: 1980-81]. Hence, initial study on the trend and composition analysis has been conducted from 1950-51 up to 1992-93 based on the old series of savings. In order to update the saving data from 1993-94 to 2003-04, the new series [Base: 1993-94] on savings has been used in the present chapter. It would be sufficient to point out that the percentage difference between gross domestic saving for the old series and the new series is only 0.05, which is a very marginal difference. The data used in the present chapter has been obtained from different issues of National Accounts Statistics of India [EPWRF]; and for the recent data based on the new series from 1993 onwards; the issues of the Handbook of Statistics on Indian Economy [RBI] have been used.

2.2.1 Trend Behaviour

The behaviour and trend in savings have been analysed in detail. The trend behaviour has been analysed using the following three indicators:

- Trend growth of saving;
- Trend growth of saving rate; and
- Average saving rate

The trend growth rate has been estimated using the following equation:

$$\text{Log } S = a + b T$$

Where S = alternative saving measurements

T = time

b = rate of growth in saving

Coefficient 'b' which is the rate of growth of saving has been estimated for various time periods [phases] and saving variables.

The average saving rate has been estimated in the following way:

$$\text{Average saving rate} = \frac{\sum [S/Y]_i}{T}$$

Where,

i = 1, 2, 3, ..., T

S = stands for gross domestic saving and its components

T = stands for time or trend variable

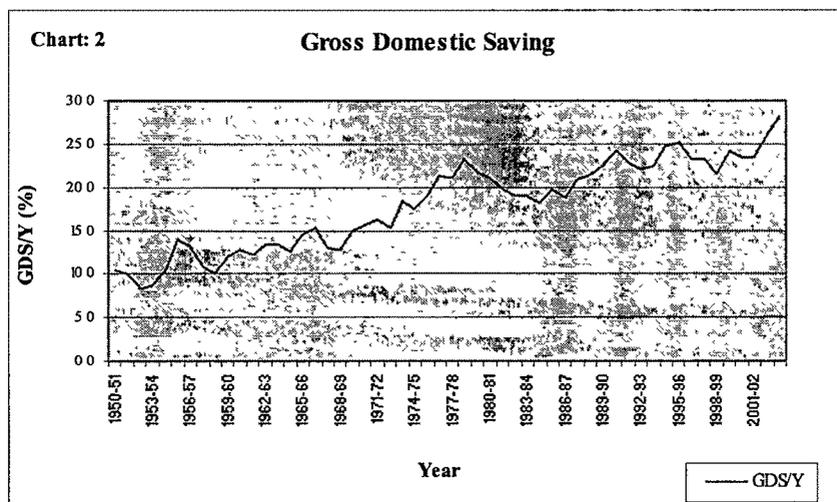
Y = stands for nominal national income
[or, GDP at current market prices]

S/Y = stands for the ratio of saving to nominal national income
[or, saving rate]

A study of Gross Domestic Saving rate in India leads us to fragmenting the analysis period into various time periods or phases revealing unique patterns of saving. Although there are various indicators of saving behaviour, it is primarily the average saving rate which determines the behaviour of GDS and its components. On the basis of the average saving rate in different phases, the nature and behaviour of saving components has been traced.

a. *Gross Domestic Saving*

Chart 2 shows the behaviour of gross domestic saving rate [GDS/Y] over the time period 1950 to 2003. It reveals that domestic savings in the country has experienced an overall increasing trend but accompanied by wide fluctuations with many ups and downs over the past five decades and more.



A study by Joseph [1997] on saving classifies the entire period of upward movement in the saving rate into three distinct phases on the basis of the behaviour of saving witnessed in the economy: a medium initial phase from 1950-51 to 1966-67 [17 years], a fast middle phase from 1966-67 to 1978-79 [13 years], and a slow final phase from 1978-79 to 1995-96 [18 years]. He calls the fast saving phase of 13 years as the '*golden age of India's saving rate.*' In the present study, we have extended the initial low saving phase from 1950-51 to 1968-69 because post 1966-67, the saving rate experienced a steep fall before it entered a period of impressive savings. A careful observation of the behaviour of gross domestic saving rate in the above chart reveals that the fast saving phase can be further bifurcated into Increasing and High Saving Phases. A closer look at the slow saving phase too, emphasises the fact that it is a long time period over which the saving rate has not been consistently moderate. Therefore, even this phase can be broken down into shorter phases like Stagnation, Recovery and New High Saving Phases. The span of over five decades exhibiting a

secular upward trend in saving rate can be broadly viewed as composed of six distinct time periods or phases of saving.

Table 1 shows the trend behaviour of GDS during the different phases.

The Indian saving in the post planning era has passed through various phases. The average gross domestic saving rate has witnessed lots of fluctuations in the era of planned economy. It has increased from a low of 11.9 percent during the first 18 years of planning to as high as 21.8 percent during 1976-1978. Then after, following bank nationalisation, the average saving stagnated to 19.8 percent for five years. But after this short fall, the average saving rate once again revived and reached a peak of 24.1 percent during the ten year period from 1993 to 2003. The saving rate during this phase was even higher than the one experienced by the Indian economy during the earlier high saving phase.

On this basis, the entire time period of the trend analysis from 1950-51 to 2003-04 has been typically divided into the following phases [time periods]:

1. Low Saving Phase [1950-51 to 1968-69]
2. Increasing Saving Phase [1969-70 to 1975-76]
3. High Saving Phase [1976-77 to 1978-79]
4. Stagnation Phase [1979-80 to 1984-85]
5. Recovery Phase [1985-86 to 1992-93]
6. New High Saving Phase [1993-94 to 2003-04]



Table: 1 **Gross Domestic Saving : Its Phases**

	<i>Time Period</i>	<i>Trend Growth of Saving</i>	<i>Trend Growth of Saving Rate</i>	<i>Average Saving Rate</i>
1.	Low Saving Phase [1950-51 to 1968-69]	10.1	2.4	11.9 (8.2* 1952-53)
2.	Increasing Saving Phase [1969-70 to 1975-76]	15.9	4.7	16.7 (18.9 1975-76)
3.	High Saving Phase [1976-77 to 1978-79]	14.6	4.3	21.8 (23.2 1978-79)
4.	Stagnation Phase [1979-80 to 1984-85]	10.5	-3.5	19.8 (21.6 1979-80)
5.	Recovery Phase [1985-86 to 1992-93]	17.2	2.7	21.5 (24.3 1990-91)
6.	New High Saving Phase [1993-94 to 2003-04]	12.3	1.1	24.1 (28.1 2003-04)
7.	Whole Period [1950-51 to 2003-04]	13.4	1.9	17.9 (28.1 2003-04)

* This figure stands for the lowest saving rate during the low saving phase.

Note: The rest of the figures in brackets refer to the highest saving rate reached in the particular year during the respective phases.

1. Low Saving Phase: 1950-51 to 1968-69

During this period, savings remained quite low accompanied by fluctuations now and then. After touching a low of 8.2 percent in 1952-53, the years 1953-54 to 1955-56 however experienced a steep rise in savings which is not to be seen in any of the other time periods. The saving rate over this nineteen year phase ranged between 8.2 percent and 15.3 percent with the average saving rate being 11.9 percent. During the same period, trend growth of saving and trend growth of saving rate were 10.1 percent and 2.4 percent respectively.

2. Increasing Saving Phase: 1969-70 to 1975-76

The increasing saving phase saw the saving rate rising from 14.9 percent to 18.9 percent. The average saving rate also improved to 16.7 percent. The trend growth of saving was 15.9 percent while the trend growth of saving rate was 4.7 percent during this phase.

3. High Saving Phase: 1976-77 to 1978-79

The saving rate started climbing high during this phase. In 1978-79, the saving rate accelerated and reached a peak of 23.2 percent. The average saving rate was 21.8 percent in this phase while the trend growth of saving and trend growth of saving rate stood at 14.6 percent and 4.3 percent respectively. This period of seventies marks one of the spectacular events in the saving performance of the Indian economy.

4. Stagnation Phase: 1979-80 to 1984-85

The stagnation phase witnessed a decline in the saving rate. The saving ratio varied between 18.2 percent and 21.6 percent over this phase, although remaining quite stagnant over the six years. Unlike the earlier period, the average saving rate stagnated around 19.8 percent in this period. Trend growth of saving was 10.5 percent while the trend growth of saving rate was very low, in fact negative at -3.5 percent.

5. Recovery Phase: 1985-86 to 1992-93

After the short lull of the previous phase, savings started recovering over this period rising from a low saving rate of 18.7 percent to a high of 24.3 percent. The average saving rate also witnessed substantial increase reaching to 21.5 percent. Trend growth of saving was 17.2 percent and trend growth of saving rate was 2.7 percent during this phase.

The following observations may be drawn from Table 2 above:

- i. The behaviour of average saving rate in the household sector has been consistent with that of gross domestic saving. Moving in a similar fashion, the average saving rate climbed from a low of 8.5 percent in the first phase to over 15.0 percent in the third phase. However, it stagnated then after, and taking a U-turn it once again reached a high of 20.2 percent by the new high saving phase.
- ii. Average of household financial saving rate has been rising continuously and rapidly through all the six phases. This truly supports the increasing expansion of the financial system and the spread of bank branches into rural areas. Also, there has been an increase in the variety and availability of alternative investment opportunities for the households. The average household financial saving rate has been on a long-term upward trend, increasing more than four times from 2.5 percent in the first phase to 10.6 percent by the last phase.
- iii. Average household physical saving rate witnessed a substantial increase over the first three phases from 6.0 percent to over 9.5 percent, but declined in the following phase. Then after, the average saving rate rebounded to 9.7 percent in the last phase. Household physical saving behaviour has been consistent with that of the household sector. Therefore, the fall in average household saving rate in the fourth phase has been the outcome of decline in the physical component of household savings.
- iv. Average saving rate of the corporate sector has remained quite the same hovering around 1.5 percent, except for the last two phases when it rose substantially to 4.0 percent owing to the introduction of reforms during the nineties.
- v. The average public saving rate increased steadily for the initial three phases, although it remained below 5 percent. It declined subsequently reaching an all time low of -0.1 percent in the last phase.

Government Administration and Departmental Enterprises [GADE] reveal a saving behaviour parallel to that of the overall public sector. On an

average, GADE was found to be dissaving over the last two phases to the extent of -3.4 percent in the new high saving phase. The only exception has been the Non-Departmental Enterprises [NDE] which have shown steady improvement in their saving performance. Their average saving rate has climbed from a meagre 0.4 percent to 3.3 percent during the six phases. Thus, the miserable performance of the public sector over the last three phases has solely been the result of increasing dissavings in the government administration and departmental enterprises.

c. Components of Household Financial Saving

Financial system has undergone a major change in structure and magnitude. The economy has moved from a market based to a financial based economy. As such, the financial instruments have come to occupy an important place in the economic arena. In the current scenario, it is a matter of great concern as to what course has the financial components taken over time. Table 3 highlights the behaviour of the components of gross financial saving of the household sector over the six phases.

Table: 3		Components of Household Financial Saving						
		[As Percentage of GDP]						
	<i>Components</i>	<i>Phase 1</i>	<i>Phase 2</i>	<i>Phase 3</i>	<i>Phase 4</i>	<i>Phase 5</i>	<i>Phase 6</i>	<i>Whole Period</i>
		<i>[1950-51 to 1968-69]</i>	<i>[1969-70 to 1975-76]</i>	<i>[1976-77 to 1978-79]</i>	<i>[1979-80 to 1984-85]</i>	<i>[1985-86 to 1992-93]</i>	<i>[1993-94 to 2003-04]</i>	<i>[1950-51 to 2003-04]</i>
	FA* [A+B]	3.1	5.2	8.1	9.1	10.7	12.4	7.4
A.	CS [a+b+c]	0.9	1.6	2.1	2.3	3.4	3.8	2.2
a.	LF	0.3	0.5	0.6	0.7	0.9	1.5	0.7
b.	PF	0.6	1.1	1.4	1.6	1.9	2.2	1.3
c.	UTI	0.0	0.0	0.0	0.1	0.6	0.1	0.1
B.	NCS [a+b+c+d]	2.2	3.5	6.0	6.8	7.3	8.7	5.2
a.	CUR	0.6	0.8	1.1	1.1	1.2	1.2	0.9
b.	DEP [i+ii]	0.9	2.3	4.4	4.3	4.3	5.3	3.1
i.	BD	0.8	2.2	4.2	3.9	3.8	4.6	2.7
ii.	NBD	0.1	0.2	0.2	0.4	0.5	0.7	0.3
c.	HH _{sh}	0.3	0.1	0.1	0.3	0.7	0.6	0.4
d.	Others	0.4	0.4	0.4	1.1	1.1	1.5	0.8

Note:

* FA refers to household saving in financial assets which is household financial savings gross of financial liabilities. It is also referred to as gross financial saving.

FA = Household Saving in Financial Assets	CS = Contractual Saving	LF = Life Funds
PF = Provident and Pension Funds	UTI = Unit Trust of India	NCS = Non-Contractual Saving
CUR = Currency	DEP = Deposits	BD = Bank Deposits
NBD = Non-Banking Deposits	HH _{sb} = Household Investment in Shares and Debentures	
Others = Claims on Government and Other Small Saving Assets		

The important findings from Table 3 above are:

- i. Average saving rate for gross financial saving recorded a remarkable growth over the six phases. It increased more than four fold from about 3.0 percent in the first phase to over 12.0 percent in the sixth phase.
- ii. Contractual savings also experienced an ever rising upward trend in the average saving rate. It accelerated about four times from 0.9 percent to 3.8 percent in the gap of six phases. Thus, the contractual saving behaviour is in terms with that of the gross financial saving.
- iii. Similarly, non-contractual savings have also increased more than four fold from 2.2 percent to 8.7 percent between the first and the last phase.

Therefore, gross financial saving along with its two components, contractual and non-contractual savings reveal similar trends. However, the trend behaviour of non-contractual saving has a more pronounced impact on gross financial saving.

- iv. Among the components of contractual saving,
 - o The average saving rate of life funds has been on a rising trend over the phases but increasing only marginally each time. It has managed to rise from a meagre 0.3 percent in the first phase to 1.5 percent in the sixth phase.
 - o Provident and pension funds also experienced a slow and gradual rise in its average saving rate from a low of 0.6 percent to over 2.0 percent by the last phase.
 - o Average saving rate for the units of UTI remained negligible over the first three phases [the inception of the Unit Trust of India was done in 1964 only] but later increased marginally to 0.6 percent in the fifth phase, only to decline to 0.1 percent in the subsequent phase. Hence, of

all the contractual saving instruments, the weakest performance has been exhibited by the units of UTI.

Contractual saving and two of its components, that is, life funds and provident and pension funds experience similar trends. Still, the rise in the average saving rate contractually has largely been supported by an increase in provident and pension funds.

v. Among the non-contractual saving components,

- The average saving rate for currency rose marginally in the beginning but stagnated at 1.1 percent over the third and fourth phases of saving. Overall, it has doubled between the first and sixth phases from 0.6 percent to 1.2 percent.
- The average saving rate for deposits rose significantly from a little below 1.0 percent to over 4.0 percent by the third phase. Although it stagnated at 4.3 percent in the following period of eighties, it restrengthened to almost 5.3 percent in the last phase.

Within deposits, bank deposits have moved parallel to total deposits with its average saving rate ranging between 0.8 percent and 4.6 percent over the phases. The average saving rate for non-banking deposits have also increased from a negligible 0.1 percent to 0.7 percent. The trend in total deposits has mainly been strengthened by that in bank deposits.

- The average saving rate in shares and debentures initially weakened from 0.3 percent to 0.1 percent for most part of the seventies and then improved in the following time period reaching 0.6 percent by the sixth phase.
- The assets referred to as 'Others' [includes claims on government and other small saving assets] fails to make any significant contribution. Its average saving rate stood stagnant at 0.4 percent for the first three phases, inching upto 1.1 percent over the next two phases and finally culminating at 1.5 percent in the last phase.

Of all the components of non-contractual saving, deposits display one of the strongest trends.

2.2.2 Composition of Saving

The fluctuating behaviour of gross domestic saving and its components necessitates the need to study the inter-sectoral relationships between the components and their compositions in the total. Particularly, with household saving accounting for more than 75.0 percent of gross domestic saving, the changing shares of saving components have come to occupy a place of crucial importance in the study.

The preference of the household sector for liquidity is reflected in its financial asset holdings in the form of currency and bank deposits. However, the predominance of time deposits in total deposits indicates a preference for higher interest returns at the cost of liquidity. The structure of household saving in financial assets reflects the preference for both liquidity and profitability, and hence household financial saving composition is an important aspect of the study of financial institutions and financial policy for economic development.

In order to study the compositional structure of saving, the average share of components in the total has been computed for each phase of saving. For studying the changes in the composition of domestic saving and its components, proportion or percentage of components in the total have been computed as the *average share of saving components*.

In this part of the chapter, we have analysed the composition of gross domestic saving, household sector saving, household financial saving, contractual and non-contractual savings, deposits as well as public sector saving.

The important points that can be drawn from Table 4 below are:

- i. Household sector constitutes the bulk of Indian savings. It occupies three-fourth share in gross domestic saving.
- ii. In the first four phases, the average contribution of household sector to GDS was around 72.0 percent. With the beginning of early reforms in the late eighties, this share shot up to over 79.0 percent and then to 83.8 percent in response to the implementation of reforms in the nineties.
- iii. The second important source of domestic saving is the public sector. It contributes over one-seventh portion of GDS. Although the public saving share in GDS increased over the initial three decades, it started declining then after. In fact, it shows a negative contribution of 0.5 percent in GDS during the new high saving phase.

- iv. As compared to developing economies, in India the share of corporate sector in GDS has been quite low, approximately one-ninth. It reduced during the first three phases and then made a turn around rising the eighties onwards. Its share in GDS increased to 16.7 percent by the last phase.
- v. It is important to highlight that private corporate saving and public saving shares in GDS have been changing in opposite directions. Also, it is worth noting that prior to the fifth phase, private corporate sector share in GDS remained below that of the public sector, but then after the trend got reversed with the corporate sector surpassing the government sector in its saving efforts.

Now, let us examine each component of GDS in detail.

a. Gross Domestic Saving

Table 4 shows the sectoral composition of gross domestic saving over the different phases.

Table: 4			
Components of Gross Domestic Saving [As Percentage of GDS]			
<i>Time Period</i>	<i>Household Sector Saving [HHS]</i>	<i>Private Corporate Sector Saving [PCS]</i>	<i>Public Sector Saving [PS]</i>
Phase 1 [1950-51 to 1968-69]	70.9	10.7	18.4
Phase 2 [1969-70 to 1975-76]	72.2	9.4	18.4
Phase 3 [1976-77 to 1978-79]	72.2	6.6	21.2
Phase 4 [1979-80 to 1984-85]	72.2	8.6	19.2
Phase 5 [1985-86 to 1992-93]	79.4	10.9	9.7
Phase 6 [1993-94 to 2003-04]	83.8	16.7	-0.5
Whole Period [1950-51 to 2003-04]	75.2	11.3	13.5

b. Household Sector Saving

Table 5 shows the contribution of household saving assets, financial and non-financial in aggregate household saving.

Table: 5 Household Sector Saving [Percentage share of components]		
<i>Time Period</i>	<i>Household Physical Saving [HPS]</i>	<i>Household Financial Saving [HFS]</i>
Phase 1 [1950-51 to 1968-69]	71.4	28.6
Phase 2 [1969-70 to 1975-76]	69.4	30.6
Phase 3 [1976-77 to 1978-79]	61.5	38.5
Phase 4 [1979-80 to 1984-85]	54.1	45.9
Phase 5 [1985-86 to 1992-93]	50.9	49.0
Phase 6 [1993-94 to 2003-04]	47.3	52.7
Whole Period [1950-51 to 2003-04]	60.7	39.3

The following observations can be made from Table 5 above:

- i. The most dominant component of household saving is savings in the form of physical [non-financial] assets. With a contribution of over 60.0 percent, it has to be the main driving force behind the significant share of the households in gross domestic saving.
- ii. Historically, it was household physical saving which accounted for over half of the domestic savings but the recent increase in savings has been triggered mainly by household financial saving.

The composition of household saving has witnessed a gradual shift from physical to financial saving. The fall in the physical component of household saving is complemented by corresponding rise in the financial counterpart. The share of household financial savings boomed from 28.6 percent to as high as

52.7 percent while that of household physical savings crashed down from 71.4 percent to a low of 47.3 percent in the gap of six phases. This indicates that households have preferred to invest more in financial assets as against physical assets.

- iii. The bank nationalisation and vigorous branch expansion beginning in 1969 spurred growth in household financial saving. Financial saving share in household saving exhibited a dramatic rise from 30.6 percent in the pre-bank nationalisation phase to 38.5 percent in the next phase and even higher in the following time periods.
- iv. As the financial sector deepens and affords investors a more attractive array of investment options, there ought to be a steady rise in household financial savings which obviously outstrips physical savings in the sixth phase.

c. Household Financial Saving

Financial liberalisation and rapid financial development in the post-sixties period have created new avenues for financial saving, in the form of a variety of financial instruments as deposits, shares and debentures, life funds, provident and pension funds, units of UTI, claims on government and other small saving assets. Besides, it has led to a rise in interest rates and reduction in intermediation costs, all this leading to a rise in saving rates.

As financial assets and its components occupy an important place in the saving literature, an examination of the composition of financial saving is undertaken in the chapter ahead. According to Pandit [1991], the composition of financial saving is driven by the rates of return on each type of financial saving, and to some extent, by bank expansion.

For the purpose of data specification and to avoid any statistical error in the totality of household saving in financial instruments, it is important to clarify here that the savings generated by various financial assets eventually add up to yield gross financial saving or household saving in financial assets [FA] and not household financial saving [HFS] which is net of liabilities.

Table 6 shows contractual and non-contractual savings and their components as percentage of gross financial saving.

Table: 6 Household Financial Saving Components									
[In Percent of FA]									
<i>Time Period</i>	<i>CS</i>	<i>LF</i>	<i>PF</i>	<i>UTI</i>	<i>NCS</i>	<i>CUR</i>	<i>DEP</i>	<i>HH_{sb}</i>	<i>Others</i>
Phase 1 [1950-51 to 1968-69]	37.7	15.4	22.1	0.2	62.3	-3.2	23.7	15.6	25.9
Phase 2 [1969-70 to 1975-76]	32.6	10.7	21.2	0.7	67.4	15.9	43.8	1.4	6.4
Phase 3 [1976-77 to 1978-79]	25.9	7.8	17.6	0.5	74.0	12.9	54.8	1.6	4.7
Phase 4 [1979-80 to 1984-85]	25.4	7.4	17.1	0.9	74.6	11.8	47.4	3.2	12.2
Phase 5 [1985-86 to 1992-93]	31.8	8.4	18.1	5.4	68.2	11.1	40.4	6.3	10.4
Phase 6 [1993-94 to 2003-04]	30.4	11.8	17.9	0.7	69.6	9.7	42.8	4.9	12.1
Whole Period [1950-51 to 2003-04]	32.6	11.6	19.7	1.2	67.4	6.9	37.4	7.8	15.2

FA = Gross Financial Saving

CS = Contractual Savings

LF = Life Funds

PF = Provident and Pension Funds'

UTI = Unit Trust of India

NCS = Non-Contractual Savings

CUR = Currency

HH_{sb} = Household Investment in Shares and Debentures

DEP = Deposits

Others = Claims on Government and Other Small Saving Assets

The important points to be noted in Table 6 above are:

- i. Nearly two-third of gross financial saving comes from non-contractual savings. The remaining being supplied by the secondary source of contractual savings.
- ii. The proportion of contractual saving is found to be reducing over the first four phases on account of declining shares of life funds and provident and pension funds. Life insurance funds experienced a relative decline in their ability to attract financial saving over a period of almost twenty five years 1969 onwards, majorly on account of low interest paid on this saving instrument. Besides, the share of provident and pension funds also stagnated during the same time. Units of UTI stand to be an insignificant component of gross

financial saving assets with a share of only 1.2 percent. It fails to boost the proportion of contractual saving despite realising an upward trend on its own.

The fifth phase is the golden period for contractual saving when its share in gross financial saving took a recovery leap to almost 32.0 percent, accompanied by a rise in shares of each of its components. The units of UTI especially made a substantial contribution of 5.4 percent to contractual savings.

- iii. The rise in the share of non-contractual saving from a little over 62.0 percent to almost 75.0 percent between the first four phases is primarily on account of the rising shares of deposits and secondly currency in gross financial saving. A major jump in the share of currency and deposits is particularly visible in the second phase, when the year 1974 witnessed the growth and expansion of the financial system and financial instruments in the Indian economy. This was accompanied by a decline in the proportion of household shares and debentures and other assets. Thus, a relatively larger part of household financial saving appears to be flowing in the direction of claims, such as currency and bank deposits.
- iv. During the seventies, we find that financial wealth was amassed mainly in the form of cash holdings, deposits, provident funds and insurance as the financial system was tightly regulated. Although the proportion of shares and debentures declined initially, it started improving subsequent to financial liberalization and stock market expansion in the late 1980s, multiplying four fold between the third and fifth phases. However, it declined then after.

After an initial fall, the proportion of 'other assets' in gross financial saving also increased to around 12.0 percent in the fourth phase. Its share in financial saving kept fluctuating, falling in the subsequent time period only to rise again.

- v. In the seventies, the proportion of shares and debentures declined due to unfavourable and depressing capital market situation. The eighties, however, witnessed buoyancy in the capital market, new issues market and widening of mutual funds sector. This led to a shift within the components of gross

financial saving from currency and deposits to shares and debentures. Subsequent to a stock market scandal and an ensuing price downturn in 1992, the investment in shares and debentures [including mutual funds] declined sharply, and financial saving shifted largely back into deposits and government paper, although the latter is not obvious from the table as claims on government is included with other assets.

d. Contractual Saving

Table 7 reveals the share of contractual financial instruments in total contractual saving.

Table: 7 Contractual Saving Components [In Percent of CS]			
<i>Time Period</i>	<i>LF</i>	<i>PF</i>	<i>UTI</i>
Phase 1 [1950-51 to 1968-69]	38.1	61.3	0.6
Phase 2 [1969-70 to 1975-76]	32.9	65.1	1.9
Phase 3 [1976-77 to 1978-79]	29.9	67.9	2.1
Phase 4 [1979-80 to 1984-85]	29.1	67.1	3.9
Phase 5 [1985-86 to 1992-93]	26.5	57.7	15.8
Phase 6 [1993-94 to 2003-04]	39.1	58.6	2.3
Whole Period [1950-51 to 2003-04]	34.4	61.8	3.9

CS = Contractual Savings

LF = Life Funds

PF = Provident and Pension Funds

UTI = Unit Trust of India

The following are the main observations made from Table 7 above:

- i. Provident and pension funds is the most significant component of contractual saving. It is responsible for more than sixty percent of contractual savings.

- ii. Life funds is the second important source of contractually generated savings. It declined continuously except for the sixth phase when it shot up to 39.1 percent as fallout of liberalisation and reform process introduced in the earlier phase.
- iii. The proportion of UTI units in contractual saving has been very low. It increased slowly and gradually over each phase but sharply in the fifth phase to a high of almost 16.0 percent. However, it slumped to as low as 2.3 percent in the following phase.
- iv. The shares of life funds and UTI units have been changing in opposite directions. On the other hand, the share of provident fund has been comparatively stable, always constituting nearly sixty percent of total contractual savings.

e. Non-Contractual Saving

The changing shares of non-contractual saving components are shown in table 8.

Table: 8 Non-Contractual Saving Instruments				
[As Percentage of NCS]				
<i>Time Period</i>	<i>CUR</i>	<i>DEP</i>	<i>HH_{sh}</i>	<i>Others</i>
Phase 1 [1950-51 to 1968-69]	115.9	61.1	3.2	-80.1
Phase 2 [1969-70 to 1975-76]	23.5	65.0	2.1	9.4
Phase 3 [1976-77 to 1978-79]	17.5	73.9	2.2	6.3
Phase 4 [1979-80 to 1984-85]	15.8	63.5	4.3	16.4
Phase 5 [1985-86 to 1992-93]	16.5	58.9	9.5	15.1
Phase 6 [1993-94 to 2003-04]	13.9	61.6	7.0	17.4
Whole Period [1950-51 to 2003-04]	50.1	62.4	4.8	-17.3

NCS = Non-Contractual Savings

CUR = Currency

DEP = Deposits

HH_{sh} = Household Investment in Shares and Debentures

Others = Claims on Government and Other Small Saving Assets

Important points regarding Table 8 above are:

- i. At the commencement of planning in India, currency was the most important component of non-contractual saving. In fact, it was more than a hundred percent, in a way compensating for dissavings in the form of claims on government and other assets [Others]. Immediately after this phase, the proportion of currency in non-contractual saving witnessed a sudden and sharp decline to 23.5 percent followed by further receding contributions.
- ii. The decline in the share of currency was accompanied by a rise in the share of deposits and shares and debentures, and to an appreciable extent improvement in the proportion of other assets also.
- iii. More or less, the relationship between deposits and shares and debentures appears to be of an inverse nature. During those phases for which the proportion of deposits is rising, that of shares and debentures is found to be reducing and vice versa.
- iv. Deposit is the key component of non-contractual saving contributing over sixty percent to the latter. In particular, deposits have been responsible for the high share of non-contractual saving in financial savings. Currency holdings are another important component of non-contractual financial saving with a share of over fifty percent. Overall, the contribution of shares and debentures was less than 5.0 percent while that of other assets was -17.3 percent.

f. Deposits [DEP]

Table 9 shows the composition of household deposits over various phases.

Table: 9		
Components of Deposits [As Percentage of Total Deposits]		
<i>Time Period</i>	<i>BD</i>	<i>NBD</i>
Phase 1 [1950-51 to 1968-69]	90.3	9.7
Phase 2 [1969-70 to 1975-76]	91.4	8.6
Phase 3 [1976-77 to 1978-79]	95.4	4.6
Phase 4 [1979-80 to 1984-85]	89.7	10.3
Phase 5 [1985-86 to 1992-93]	89.3	10.7
Phase 6 [1993-94 to 2003-04]	86.9	13.1
Whole Period [1950-51 to 2003-04]	89.9	10.1

BD = Bank Deposits

NBD = Non-Banking Deposits

The following observations may be made from Table 9 above:

- i. A rise in the share of bank deposits goes hand in hand with fall in the share of non-banking deposits and vice versa.
- ii. Between the first and last phase, there is a marked improvement in the share of non-banking deposits. While in the first phase its proportion in total deposits stood at 9.7 percent as against 90.3 percent contribution of bank deposits; in the last phase, the share of non-banking deposits rose to 13.1 percent with the remaining being supplied by bank deposits.
- iii. With a share of over 90.0 percent, it is doubtless that bank deposit is the backbone of total household deposits. Therefore, bank deposit is the most important component of total household deposits as well as of non-contractual savings.

g. Public Sector Saving

Table 10 reveals the shares of government departments in total public saving.

Table: 10 Components of Public Sector Saving		
[In Percent of PS]		
<i>Time Period</i>	<i>GADE</i>	<i>NDE</i>
Phase 1 [1950-51 to 1968-69]	82.1	17.9
Phase 2 [1969-70 to 1975-76]	66.8	33.2
Phase 3 [1976-77 to 1978-79]	67.6	32.4
Phase 4 [1979-80 to 1984-85]	43.8	56.2
Phase 5 [1985-86 to 1992-93]	-73.3*	173.3
Phase 6 [1993-94 to 2002-03]	88.1*	11.9
Whole Period [1950-51 to 2002-03]	52.6	47.4

PS = Public Sector Saving NDE = Non-Departmental Enterprises

GADE = Government Administration and Departmental Enterprises

* These are contributions of GADE towards the dissavings of the public sector.

The important points to be noted from Table 10 above are:

- i. In the five decades span, the bulk of government saving has been provided by the government administration and departmental enterprises [GADE] with a share of over 52.0 percent.
- ii. A segregated picture of the time period reveals a contradictory behaviour of the sources of public sector saving.

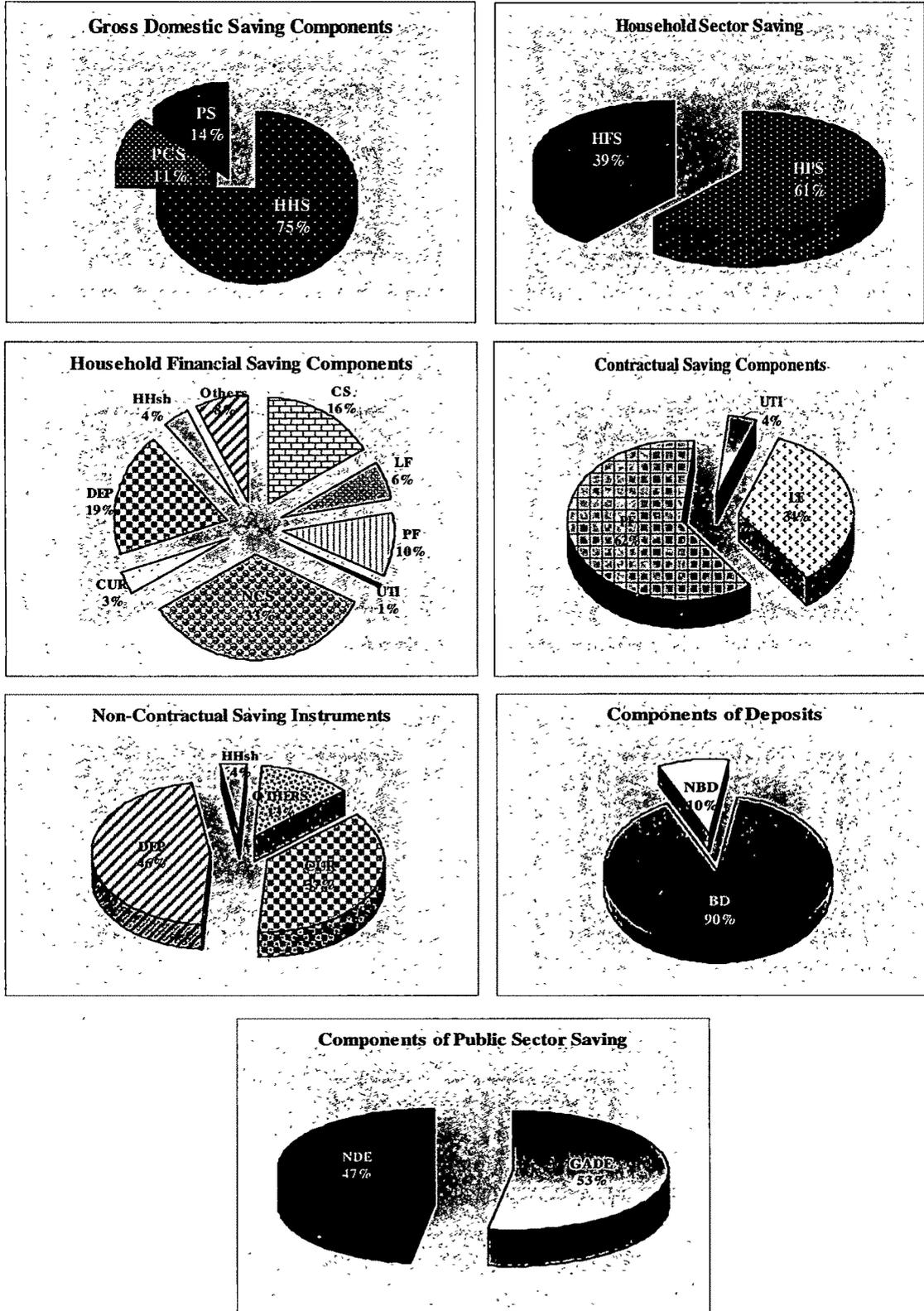
Although government administration and departmental enterprises were contributing over 80.0 percent of public saving in the first phase, their share declined continuously then after, followed by increasing dissavings during the time period 1985 to 2002. This was an obvious outcome of the highly inefficient functioning and poor performance of the government administration and departmental enterprises.

In contrast, the proportion of non-departmental enterprise savings has risen over time. Its share in public saving has scaled from as low as 5.4 percent in 1950 to as high as 440.8 percent in 1993 over the five decades. During the fifth phase [1985-1992], the contribution of non-departmental enterprises to public savings was of the magnitude of 173.3 percent. This segment of the government sector has been constantly making up for the failures of the government administration and departmental enterprises.

- iii. During the sixth phase [1993-2002], the non-departmental enterprises have contributed almost 12.0 percent of public sector savings whereas the government administration and departmental enterprises constitute nearly 88.0 percent of the public sector dissavings.

Chart: 3 **Composition of Gross Domestic Saving and its Components**

The following pie graphs show the composition of gross domestic saving and its components for the average of the time period 1950-51 to 2003-04. The composition for public sector saving is for the average of the time period 1950-51 to 2002-03.



h. Overall Structure and Composition of GDS

In this section, we have taken an overview of the composition analysis. All the sectoral components of gross domestic saving and the household financial saving components have been examined as a ratio of GDS.

Table 11 shows the percentage share of major components of saving to the GDS and Table 12 shows the percentage share of various components of financial assets in the GDS. The components of saving are expressed as a percentage of gross domestic saving for three different points of time:

- 1950 - This year marks the beginning of planning in India. This year has been chosen as it is also the initial year of the analysis period.
- 1985 - This year coincides with the first phase of reforms in the country. This was the time when the Chakravarty Committee introduced some of the earliest capital market reforms.
- 2003 - This year is the closing end of the analysis period taken in the study.

	<i>Components</i>	<i>1950</i>	<i>1985</i>	<i>2003</i>
A.	HHS	73.6	73.5	86.5
a.	HPS	67.3	37.8	46.0
b.	HFS	6.4	35.7	40.5
B.	PCS	9.1	10.2	14.7
C.	PS	17.2	16.3	-1.2
a.	GADE*	16.3	1.8	-17.7
b.	NDE	0.9	14.5	11.8

* Figures for GADE and NDE are for the year 2002.

The important observations that can be made from Table 11 above are:

- i. Household sector is the most prominent source of gross domestic savings. Its share in GDS has escalated over time with a contribution of over 86.0 percent in 2003.

- ii. The components of household saving have gone through major change over time. The share of household physical savings has been falling giving way to financial savings. Household financial savings witnessed an impressive growth from 6.4 percent of GDS to 40.5 percent of GDS.
- iii. The second important source of domestic savings is the private corporate sector with a gradually increasing share in GDS.
- iv. The proportion of public sector savings has fallen drastically after 1985, making the public sector a dis-saver by the turn of the nineties.
- v. The fall in the share of public sector was solely on account of the government administration and departmental enterprises which has been spending more and earning less. The other source of public savings is the non-departmental enterprises which have been contributing significantly with a share of over one-tenth in GDS.

Table 12 shows the proportion of household financial saving instruments in gross domestic saving.

	<i>Components</i>	<i>1950</i>	<i>1985</i>	<i>2003</i>
A.	CS	4.1	12.6	12.6
a.	LF	2.2	3.5	6.7
b.	PF	1.9	8.0	7.0
c.	UTI	0.0	1.1	-1.1
B.	NCS	4.4	36.6	37.2
a.	CUR	8.2	4.3	5.2
b.	DEP	1.0	23.2	20.7
c.	HH _{sh}	3.4	2.7	1.2
d.	Others	-8.2	6.5	10.0

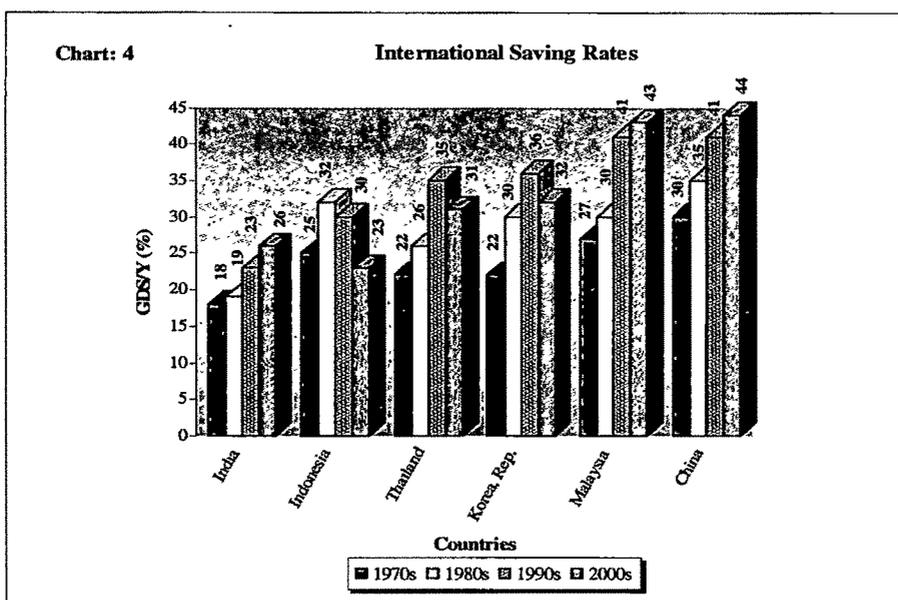
The important observations drawn from Table 12 above are:

- i. The share of both, contractual saving and non-contractual saving in GDS increased substantially from 1950 to 1985 and then after remained stagnant till 2003.
- ii. Non-contractual saving contributes maximum to the GDS.
- iii. The share of contractual saving instruments such as life funds and provident and pension funds is quite considerable whereas the share of UTI units has a negative contribution in GDS.
- iv. Among the non-contractual saving assets, the share of currency has reduced while that of deposits has increased tremendously.
- v. Deposit turns out to be the single most important saving instrument in India contributing 20.7 percent in the GDS in 2003.

The above observations makes it amply clear that a household's choice of assets is not guided merely by rates of return, but also by other built in advantages of various assets. All forms of saving are considered to be close substitutes, thus an increase in one form of saving is sometimes believed to be at the cost of another rather than at the cost of consumption.

2.2.3 International Saving Comparison

How well does the Indian saving compare with the rest of the world savings? After examining the saving behaviour in India, it is equally important to evaluate India's saving position in comparison to the world. The following Chart 4 exhibits the patterns in gross domestic saving rate across countries over the last three and a half decades.



Source: Mishra [2006, Preliminary Draft, The World Bank]

The gross domestic saving rates across countries reveal tremendous difference in the cross-country saving behaviour. The developing countries have experienced higher saving rates in comparison to the developed countries. U.S.A and U.K. have one of the lowest saving rates at 13.5 and 14.4 percent respectively. The gross domestic saving rate of Japan [26.0 percent] is still comparable to some of the East Asian countries [28.1 percent to 32.8 percent].

India's saving rates are quite impressive from the global perspective and compares favourably to that of other developing countries. It is however lower than the saving rates of the East Asian 'miracle' nations. Except for Indonesia, the saving rates for the miracle nations range from 22.0 percent to 44.0 percent over the decades. Although the saving rates for the five East Asian countries declined after the 1997 currency crises, they were still saving higher than India. This was a temporary setback and except Indonesia, the saving rate recovered in all other countries.

With a saving rate of over 40.0 percent, Malaysia and China are incomparable and unparallel in the history of world saving scenario. By the yardstick of these high saving nations, there seems to be considerable scope for exploiting the saving potential of Indians.

Table 13 below shows the saving and consumption behaviour between developing and developed economies for the year 2003.

Table: 13 Saving and Consumption Rates : An International Perspective			
<i>Countries</i>	<i>Gross Domestic Saving [% of GDP]</i>	<i>Household Saving [% of GDP]</i>	<i>Consumption [% of GDP]</i>
<i>Developing</i>			
China	47.0	25.5	44.7
Korea	32.8	10.0	53.8
Malaysia	42.9	n.a.	43.3
Singapore	46.7	n.a.	43.1
Thailand	32.8	18.7	56.3
India	28.1	24.3	64.4
<i>Developed</i>			
Canada	20.5	1.4	56.8
Germany	19.9	10.7	58.6
Japan	26.0	7.4	56.9
U.K.	14.4	5.5	65.6
U.S.	13.5	1.4	70.5

Source: Kash [2005] at <http://angrybear.blogspot.com>

Note: Household saving data for China is for 2002. Rest of the data for all countries is for 2003.

n.a. stands for data that are "not available".

Generally, the household sector has been an important source of domestic savings among the developing nations. The above table clearly indicates that atleast for three countries, which are China, India and Thailand; the households contribute more than half of the gross domestic savings. India is a special case for which the households are crucial saving agents with a share of over 85.0 percent in GDS. Among the developed nations, Germany is the only country with a significant household saving share of over 50.0 percent in its gross domestic savings.

India's household saving rate is competitive to that of China's but still India falls short of China in terms of its gross domestic saving rate. It is mainly the high level of consumerism in the Indian household sector which curbs the level of gross domestic savings. Some of the developed nations such as Germany, U.K. and U.S.A. also reveal high consumption rates by households. The latter two in fact experience low household saving rates and gross saving rates on account of their high consumption spending. Therefore, the high rate of savings in many Asian economies is primarily due to low rates of consumption spending. In these economies, economic growth has been rapid whereas consumption expenditures have not increased fast enough. As such, they tend to save the difference.

2.3 Saving Behaviour In India: A Review of Literature

The main studies that have analysed the behaviour, composition and causes of the Indian saving behaviour during different time periods are Majumdar et.al [1980], Rao [1980, 1983], Krishnamurty and Saibaba [1981], Rakshit [1982,1983], Bansal and Joshi [1987], Krishnamurty, Krishnaswamy and Sharma [1987], Shetty [1990], Muhleisen [1997], and Ray and Bose [1997].

After having studied the trend behaviour and composition of gross domestic saving and its components in different phases of time, we now take up each saving phase individually and explore the various reasons behind the uneven behaviour of savings therein.

1. Low Saving Phase [1950-51 to 1968-69]

The low saving phase begins with the first year of planned era to the eve of bank nationalisation [1950-1969]. The low saving phase identifies with the eve of setting up of financial infrastructure, which led to a growing availability of financial instruments, giving an opportunity to the households to hold savings in the form of financial claims and assets. Thereby, giving a philip to household financial savings.

The household saving rate increased during this phase with the rise being most significant after the mid-sixties only. Along with household savings and household financial savings, the public savings increased as well. However, the average gross domestic saving rate in this phase was low at 11.9 percent. There were two main reasons for this behaviour of gross domestic saving. One, the private corporate saving rate had stagnated and second, the agricultural sector occupied a larger share of the country's GDP. As the agricultural sector is characterised by low propensity to save, it depressed the overall saving rate in the economy.

The up tide in the public saving rate during this phase, most obvious in the early sixties, was on two counts:

- i. The double-digit inflation in the economy and balance of payment crisis called for serious remedial measures like severe import controls and foreign exchange regulations for controlling the public deficit.

- ii. Government saving also increased due to increased tax efforts. The tax-GDP ratio increased from 5.4 percent in 1950-51 to 9.0 percent in 1960-61.

The 1960s was a decade of economic upheavals in the history of India. The sixties were marred by the 1962 war with China, and the 1965 war with Pakistan. Besides, the country was afflicted with droughts in 1965 and 1966. All of these misgivings had a cumulative downward impact on savings.

2. Increasing Saving Phase [1969-70 to 1975-76]

Household savings witnessed a steady and continuous upward trend during the increasing saving phase from 1969 to 1975. There was a noticeable rise in household financial savings. The rise in financial asset holdings of households during this phase can be traced to higher rates of saving among households in the form of bank deposits, insurance policies, and provident and pension funds.

The gross domestic saving rate during this period had improved to 16.7 percent. The household saving rate averaged at 12.1 percent in this phase. The corporate saving rate continued to stagnate around 1.5 percent accompanied by a gradual rise in public saving rate. Public savings increased because the government administration cut down its current expenditures in response to the oil shock. Besides, there was also a marginal increase in the saving rate of statutory corporations.

Savings were on an increasing path during this phase due to the following reasons:

- i. Financial deepening in the Indian economy.

Inspired by a socialist pattern of society, fourteen major commercial banks were nationalised in 1969 and six more banks were nationalised in 1980 in favour of social control and harmony. This gave a new sense of purpose to the banks to solve the malady of the past. "The decision of July 1969 was a complete break from the tradition; it was an explicit recognition by the government that it could not absolve itself of its responsibilities of controlling directly the banking system if it was to be

shaped as an instrument of furthering economic development in accordance with national objectives and priorities” [Ghosh, 1979].

Driven by this social purpose, the banking system spread its wings with extension and diversification of banking services in the backward areas. Almost 200 Regional Rural Banks [RRBs] were set up since 1975. The number of bank branches increased and the size of population per branch improved. The number of deposits per branch had also risen during the same period.

In the immediate period following bank nationalisation, the industry achieved complete transformation from commercial to social banking and from class to mass banking. The banking industry in India has registered phenomenal growth, perhaps, having few parallels in the world history of banking.

The banking system not only grew geographically, but also structurally and functionally. Financial deepening in the economy along with growth and diversification in financial institutions led to development and differentiation of financial infrastructure with wider options of financial instruments that helped to enhance financial savings. Moreover, the inherent indivisibility of physical capital and long-term security associated with financial assets encouraged the households to save in the form of financial savings.

ii. The parallel introduction of Green Revolution.

The advent of Green Revolution in the mid-sixties came to fruition in the late sixties only. The effect of green revolution was to make the HYV technology more accessible to the upper income classes and imbibe rigidity in downward flexibility of agricultural prices [Chakravarty, 1979]. This could have happened because of higher procurement prices which in reality seem to have turned out to be support prices. All this led to income distribution in favour of the large land-holding classes. As the upper income groups have a higher propensity to save, a skewed

distribution of income in their favour raised the propensity to save in the agricultural sector as a whole. Hence, even with the same share in GDP, the saving rate of the agricultural sector turned out to be higher as compared to the earlier phase.

Consequent to the income redistributive effects of Green Revolution and the policies pursued to promote it, the propensity differentials between agricultural and non-agricultural sectors have narrowed down in the post-green revolution period. Krishnamurty and Saibaba [1981] also lend support to this hypothesis. According to them, another factor that contributed towards the narrowing of propensity differentials between the two sectors during the first half of the seventies was the high rate of inflation which hovered around 25.0 percent in 1974-75. The combined impact of the Green Revolution and inflation seems to have caused a large upward shift in the propensity to save of the agricultural sector as a whole.

Green Revolution and nationalisation of banks together acted as a major boost towards enhancing savings during this phase. Green Revolution increased the rural saving propensity, and this coupled with better accessibility to banks, enabled channelising of savings in bank deposits.

- iii. Initial impulse to savings was provided by accruals in the form of foreign inward remittances by Indians working abroad. However, it gained actual force during the second half of the eighties only.
- iv. Procurement of food grains in large scale by the government.
- v. The pattern of private consumption expenditure changed with a shift taking place from non-durable goods and services towards durable and semi-durable goods and services. As these goods are consumed by the higher-income groups and affluent sections of the society, household physical savings increased.

vi. The pattern of production [durable and capital goods] and commercial activities changed in favour of high-income bracket groups who have a higher propensity to save.

vii. Low rural savings.

The factors affecting rural savings are:

- The declining share of agriculture in GDP
- Low per capita income growth
- Adverse terms-of-trade effects
- Diversion of income in favour of superior consumption goods
- Investment into unproductive assets by the richer peasants.

3. High Saving Phase [1976-77 to 1978-79]

Rightly named as the 'high saving phase', this short phase of three years achieved a lot in terms of the average saving rate which rose dramatically to a high of 21.8 percent of GDP. The saving rate peaked at 23.2 percent during one year [1978-79] of this phase.

During this phase, the rate of saving of the household sector and the government sector continued to increase. The late seventies witnessed the highest ever public saving rate of over 4.0 percent due to increase in government revenue after the economic recovery from the oil shock. The corporate sector however was caught in a low profitability cycle and hence performed poor relative to other sectors.

The rise in household saving rate was supported by both financial and physical savings. Almost all the factors influencing savings in the earlier phase had a spillover effect on the saving rates during this phase too.

According to Krishnamurty and Saibaba [1981], the saving behaviour during this phase is in contrast to the experience of the early seventies. The gap between the propensities of agricultural and non-agricultural sectors widened during the second half of the 1970s. This was due to a sudden spurt in foreign inward remittances from non-resident Indians belonging to the urban Indian sector who had migrated to the

Middle-East. There was a substantial rise in non-agricultural savings as compared to the agricultural savings, thereby pushing up the propensity to save in the former.

The Working Group on Savings [1982] supports the procurement of food grains and foreign inward remittances as factors responsible for the growth of household saving in the form of money balances, the initial impact being reflected in the increase in currency and bank deposits. Rakshit [1982] found fallacy in this explanation of the rise in household financial saving ratio. According to him, just as food grains procurement and foreign inward remittances, money wages and other monetary receipts also initially raise the money balances with the households.

The households' preference for savings in the form of currency and bank deposits depends partially on the relative rates of return on different types of assets, and on extension of banking facilities, or on monetisation in the broad sense.

Household physical savings or capital formation in the household sector increased due to relatively higher profitability of investment in the unincorporated enterprises included under the household sector in comparison to the private corporate sector.

According to Majumdar et. al [1980], the cumulative impact of the vigorous bank expansion undertaken in the earlier phase also bolstered bank deposits in this phase.

4. Stagnation Phase [1979-80 to 1984-85]

The six years of this phase [1979-1984] witnessed a low to stagnant saving rates. The gross domestic saving rate stagnated at 19.8 percent during this phase. There were declines in household physical saving rate, public saving rate and private corporate saving rate. Nonetheless, the household financial savings were increasing during the same period of time.

The reasons for the above behaviour of savings in the stagnation phase are:

- i. Household physical savings declined due to the sudden rise in consumerism in the Indian economy.

- ii. The fall in public sector savings emanates from the falling efficiencies and rising expenditures of public administration and departmental enterprises. There has also been a mounting wage bill due to the large-scale government employments. Another reason for the decline in public savings was the unduly low savings by a large number of non-oil sector and non-departmental enterprises.
- iii. Shetty [1990] explained the phenomenon of stagnant saving rate in the private corporate sector by identifying the following set of factors:
 - On the whole, the sector was caught in a low profitability syndrome. The gross profits as a percentage of sales edged downwards though fractionally over a decade beginning in mid-seventies.
 - Traditional industries like tea, jute, cotton textiles, cement and some older units of engineering, became a drag on the overall profitability of the corporate sector.
 - During the same period, tax provision as percentage of sales witnessed a distinct fall, the fall being more conspicuous in case of large companies.
 - The incidence of corporate taxation as measured by tax provision as percentage of profits before tax for a sample of companies declined.
 - As a result of sizeable amount of dependence on borrowed capital and increases in capital stock as against owned funds, the interest outgo and depreciation as percentages of company sales have risen rather significantly. The latter contributed substantially to reduction in the tax burden. This had an adverse impact on the private corporate sector to generate more internal savings. Therefore, corporate savings went down [Ray and Bose, 1997].
- iv. India experienced a second oil shock in 1979-80 when OPEC hiked the oil prices. This had a negative influence on the Indian economy with the impact being felt mainly by the terms-of-trade. India's trade balance deficit amounted to 6000 crores of rupees at that time.
- v. The rise in household financial savings was mainly driven by the rising share of the non-agricultural segment in GDP.

5. Recovery Phase [1985-86 to 1992-93]

The mid-eighties which mark the beginning of this phase saw the recovery of savings ratio after sustaining a tough time in the earlier half of this decade. The average saving rate recovered back to 21.5 percent, as in the high saving times of late seventies. Several reasons have been cited for this recovery of savings:

- i. Emergence of a number of financial institutions, attractive real interest rates on various savings instruments and effective yield rates encouraged the households to invest in shares and debentures which led to a sharp recovery of gross domestic saving. Therefore, an increase in savings in the early nineties has been driven mainly by household financial savings.
- ii. Introduction of early liberalisation measures imparted buoyancy to the capital market.
- iii. Favourable response in the new issues market.
- iv. Widening of the mutual funds sector.
- v. As compared to the earlier periods, the average inflation rate was low during this phase. The five-year average annual inflation rate for the period 1986 to 1990 was 7.8 percent.
- vi. Real GNP growth: The real GNP during this phase has gone up from 511 thousand crores to 725 thousand crores of rupees, increasing by almost fifty percent.
- vii. Faster growth of non-farm income: The 1980s and 1990s witnessed declines in the share of agriculture in GDP. The share of agriculture in GDP was 34.7 percent in 1980-81 as against 48.6 percent in 1950-51. As non-farm households possess significantly better saving potential and saving propensity than farm households, the overall saving rate increased. Non-farm income also benefited from a reduction in marginal tax rates in income and property taxes.
- viii. Prior to the nineties, the public sector savings was higher than the private corporate savings. However, nineties onwards the trend got reversed. The factors accounting for growth in corporate savings are:

- The liberalisation process which began in the late eighties and continued through the nineties, created an environment for increased internal and foreign competition, as well as foreign direct investment in various sectors. Thereby, resulting into higher profits in the corporate sector.
- Rise in the share of financial joint-stock companies.

During the recovery phase, the downward slide in public sector saving rate continued because of increase in current expenditure by the government in defence, interest payments and subsidies for household consumption and saving. The public sector saving rate was on a downward trend even earlier to the nineties but the government administration started dissaving when the Indian economy got trapped into a severe balance of payment crisis in 1990-91.

The Gulf crisis of 1990-91, massive trade deficit, and deterioration in the invisibles account because of lower remittances and higher interest payments were the various factors that contributed towards a soaring current account deficit. Public savings deteriorated even further in 1993-94 in response to a fiscal slippage. The only factor which sustained public sector savings was the improving performance of non-departmental enterprises. The rise in the latter's saving rate was essentially due to the highly profitable oil sector.

6. New High Saving Phase [1993-94 to 2003-04]

Savings reached a new height during this phase with an average saving rate of 24.1 percent which was higher than the saving rate in any of the earlier phases. The end of this phase that is the year 2003-04 experienced the highest ever gross domestic saving rate, at an applaudable 28.1 percent.

This phase exhibited one of the best performances in terms of the saving behaviour in the economy. The following reasons were responsible for high saving rates in this phase:

- i. There was a substantial increase in household financial savings as a result of the financial reforms initiated in 1992-93. The impact was particularly visible in bank deposits, provident and pension funds and claims on

government securities. In addition to this, there was a marginal increase in household physical savings [investment]. The combined effect of the rise in household financial savings and household physical savings led to a rise in the overall savings.

- ii. The real GDP growth rate was high during this period. The growth rate plays an important role in encouraging savings.
- iii. The economic reform measures adopted in 1990-91 triggered the increase in private corporate sector savings.

2.4 Conclusions

This chapter deals with the definitional aspects, behaviour and composition of savings. Under the definitional aspects of savings, we have classified savings into its components and discussed the definitions of savings and each one of its components.

As savings data are mostly calculated as residuals of other macro economic variables, they are inherent with estimation errors. As such, the data issues and complications involved in the calculation and estimation of saving data have been discussed in the chapter.

The trend behaviour and composition of Gross Domestic Saving [GDS] and its components have been analysed for the planned economic era from 1950-51 to 2003-04. The trend behaviour of GDS has been analysed using three indicators: Trend Growth of Saving, Trend Growth of Saving Rate and Average Saving Rate. In addition, this chapter carries out an extensive analysis of the changing composition and profile of savings in India using appropriate statistical techniques.

After studying the trend behaviour and composition of savings, the following conclusions can be drawn:

- i. The gross domestic saving rate has exhibited an upward trend throughout the post-planning period despite considerable fluctuations from year to year.

- ii. The Indian saving, in the planned era, has witnessed six distinct phases -
1. Low Saving Phase [1950-51 to 1968-69]
 2. Increasing Saving Phase [1969-70 to 1975-76]
 3. High Saving Phase [1976-77 to 1978-79]
 4. Stagnation Phase [1979-80 to 1984-85]
 5. Recovery Phase [1985-86 to 1992-93]
 6. New High Saving Phase [1993-94 to 2003-04]
- iii. The Indian savings experience has been marked with varied oscillations in the saving rate throughout the planning period. For almost twenty years of the five decades or more, the saving rate in India was quite low averaging at 11.9 percent. There were two main reasons for this behaviour of gross domestic saving. One, the private corporate saving rate had stagnated and second, the agricultural sector occupied a larger share of the country's GDP. As the agricultural sector is characterised by low propensity to save, it depressed the overall saving rate in the economy.
- iv. After lying low for almost two decades, the saving rate increased to an average of 16.7 percent by the mid-seventies. The sudden spurt in savings was mainly because this period coincided with the financial deepening taking place in the economy and the Green Revolution effects. Other factors which contributed to the rise in savings were the rise in public sector savings in response to the oil shock, the foreign inward remittances by Indians working abroad, large scale food procurement by the government, declining share of agriculture in GDP, changing pattern of production in favour of durable goods and services and income redistribution in favour of the high-income groups.
- v. The saving rate rose even higher during the late seventies averaging at 23.2 percent. For nearly four years during this period, India continuously witnessed high saving rates chiefly as a fall out of all the factors that characterised the Indian economy in the earlier phase. Besides, the gap

between the propensities of agricultural and non-agricultural sectors widened during this period.

- vi. After withstanding high savings for few years, for almost half a decade till the mid-eighties, the economy experienced stagnancy in the saving rates with an average of 19.8 percent. The factors responsible for the lull in saving rates during this period were the decline in household physical savings and public sector savings accompanied by a stagnant private corporate saving rate.
- vii. From the second half of eighties, for almost a decade, the economy witnessed a revival in the saving rates to an average of 21.5 percent. This period marked the introduction of the first phase of reforms in the Indian economy which imparted buoyancy to the capital market, led to favourable response in the new issues market and widened the mutual funds sector. In addition to these, there were other factors that triggered the recovery in saving rates during this phase, such as attractive real interest rates, low average inflation rate, real GNP growth, faster growth of non-farm income, reduction in marginal tax rates and also growth in corporate savings which had remained stagnant for long in the earlier periods.
- viii. In the post-reform period, coinciding with the implementation of economic and financial reforms, the saving rate escalated reaching an ever high average saving rate of 24.1 percent. The saving rate during this period was unparalleled in the history of Indian saving rates reaching 28.1 percent in the year 2003. The reasons contributing to the ever rising saving rates in this period were a substantial increase in household financial savings combined with a rise in household physical savings, increasing private corporate sector savings and high real GDP growth rates.
- ix. India's saving rates are quite impressive from the global perspective and compares favourably to that of other developing countries. It is however lower than the saving rates of the East Asian 'miracle' nations.

- x. Among the developing nations, China, India and Thailand are the three countries with the household sector contributing more than half of their gross domestic savings.
- xi. India's household saving rate [24.3 percent] is competitive to that of China's [25.5 percent] but still India falls short of China in terms of its gross domestic saving rate. It is largely the high level of consumerism in the Indian household sector which curbs the level of gross domestic savings in the economy.
- xii. The household sector is the most important source of GDS, followed by the private corporate sector and lastly the public sector. The household sector contribution to GDS has always been predominant with a share of over 70.0 percent.
- xiii. Private corporate savings have experienced lots of fluctuations. It has ranged from 6.6 percent to 16.7 percent during the five decades. It declined for the initial three decades [1950-1979] and then started rising, reaching a peak of 16.7 percent during the post-reform period [1993 to 2003].
- xiv. The public sector contributed substantially for a long time period from 1950 to 1978. However, 1979 onwards it started falling and eventually became a major dissaver in the economy with increasing contributions towards public sector dissavings.
- xv. A striking feature is that the rise in private corporate savings is concurrent with decline in public savings. Savings of one sector offsets savings in the other sector. This implies a substitution of domestic saving across sectors.
- xvi. There is a portfolio shift from physical to financial saving assets. In due course of time, financial assets have absorbed a larger share of household saving, as against physical assets. This explains the financial deepening taking place in the economy.
- xvii. Within financial saving, in comparison to contractual saving assets, there has been a higher and increasing preference of households to save in non-

contractual saving instruments. The most important household financial saving assets are deposits, currency, provident and pension funds, and life funds.

The share of both, contractual and non-contractual savings in GDS increased substantially from 1950 to 1985 and then after remained stagnant till 2003. Among the two financial saving components, non-contractual saving contributes maximum to the GDS.

- xviii. Among the contractual saving components, the moderate decline in the share of life funds and provident and pension funds seem to have paved way for saving in terms of UTI units. However, the composition of GDS by financial instruments reveals a different picture. The household savings in shares and debentures has fallen drastically and the proportion of provident and pension funds has increased substantially whereas the savings in units of UTI has fallen with negative contribution in GDS.
- xix. Non-contractual savings experienced a major shift from currency holdings to deposits with growth and spread of the financial system in the economy. With the diversification of saving assets, the choice of saving instruments has been changing over time.
- xx. Within deposits, bank deposits have been substituted by non-banking deposits but only to a small extent. Almost 90.0 percent of the total deposits are held as bank deposits. Deposit turns out to be the most important saving instrument in India contributing 20.7 percent in the GDS in 2003.
- xxi. 1979 onwards, there was a switch over from currency and deposits to shares and debentures. The sudden rise in household investment in shares and debentures during 1985-1992 indicates people's preference for profitability over liquidity, which also led to financial disintermediation in the banking sector.
- xxii. Post-liberalisation, one of the most prominent and uprising non-contractual saving asset has been the claims on government securities and other small saving assets. It contributes one-tenth share in GDS in 2003. This was the

initial phase of liberalisation and small saving assets had become an attractive avenue for households to save in.

xxiii. In the public sector, the dismal performance of the government administration and departmental enterprises gets reflected in their increasing dissavings over time. However, the non-departmental enterprises have done exceptionally well with rise in savings that are huge enough to cover up any losses by the former.

xxiv. The periods of low to stagnant saving rates witnessed by the Indian economy has been characterised by the following features:

1. High inflation rates.
2. Balance of Payment crisis.
3. Larger share of agricultural income in GDP.
4. Stagnant private corporate sector savings.

xxv. During the phases of high saving, the economy experienced the following features:

1. Financial spread and deepening in the economy.
2. Spurt in foreign inward remittances from abroad.
3. Large scale food procurement by the government.
4. Shifts in the private consumption pattern from non-durable to durable goods and services.
5. Income distribution in favour of the high income groups.
6. Faster growth of non-farm incomes.
7. Higher real economic growth.
8. Lesser share of agriculture in GDP.
9. Increase in private corporate sector profitability.
10. Emergence of a large number of financial institutions.
11. High effective yield rates and attractive real interest rates.

Overall, the Indian saving has been growing at an impressive rate even from the international perspective. It is very important to find out whether this impressive

growth in saving has been able to fuel economic growth? Or to put it the other way, *whether high growth in savings in the country is reflected in its growth rate? Does saving influence economic growth? What is the Growth-Saving dynamics in the country?* These are some of the important as well as relevant questions which are being answered in the next chapter.

List of Abbreviations

1. GDS	Gross Domestic Saving [GDS at current market prices]	[2+18+19]
2. HHS	Household Sector Saving	[3+4]
3. HPS	Household Physical Saving [Net of depreciation/final consumption]	
4. HFS	Household Financial Saving [Net of financial liabilities]	
5. FA	Household Saving in Financial Assets	[7+11]
6. FL	Financial Liabilities of Household Sector	[5-4]
7. CS	Contractual Saving	[8+9+10]
8. LF	Life Funds	
9. PF	Provident and Pension Funds	
10. UTI	Units of the Unit Trust of India	
11. NCS	Non-Contractual Saving	[12+13+16+17]
12. CUR	Currency	
13. DEP	Deposits	
14. BD	Bank Deposits	
15. NBD	Non-Banking Deposits	
16. HH _{sh}	Household Investment in Shares and Debentures	
17. Others	Other Assets + Claims on Government	
18. PCS	Private Corporate Sector Saving	
19. PS	Public Sector Saving	[20+21]
20. GADE	Government Administration + Departmental Enterprises	
21. NDE	Non-Departmental Enterprises	
22. Y	Nominal National Income [GDP at current market prices]	

References

1. Athukorala, P. and K. Sen [2002], Saving, Investment and Growth in India, Oxford University Press, India.
2. Bansal, S.N. and K.M. Joshi [1987], '*Saving Rate in India*', Vishleshan, Vol. XIII, No. 3, September.
3. Bose, D. [1994], '*Dissaggregation of Household Savings*', RBI Staff Studies, Vol. 7, December.
4. Central Statistical Organisation [1989], National Accounts Statistics: Sources and Methods, Government of India, October.
5. Chakravarty, S. [1979], '*On the Question of Home Market and Prospects for Indian Growth*', Economic and Political Weekly, Vol. XIV, Nos. 30, 31 and 32.
6. EPW Research Foundation [1998], National Accounts Statistics of India 1950-51 to 1996-97, Third Edition, Economic and Political Weekly, October.
7. EPW Research Foundation [2004], National Accounts Statistics of India 1950-51 to 2002-03, Fifth Edition, Economic and Political Weekly, December.
8. Ghosh, D.N. [1979], Banking Policy in India, Mumbai, pp. 227.
9. Gootzeit, M.J. [1995], '*Marshall's Views on Savings as an Individual Demand Concept*', Marshall Studies Bulletin, 5, pp. 17-34, University of Memphis.
10. Joseph, M. [1997]. '*India's Saving Rate: Analysis and Policy Prescriptions*', SCICI, Mumbai, April.
11. Joshi, M. [1972], '*The Role of Contractual Savings*', Finance and Development, Vol. 9, No. 4, December.
12. Krishnamurty, K. and P. Saibaba [1981], '*Determinants of Saving Rate in India*', Indian Economic Review, Vol. 16, No. 4, pp. 225-249.
13. Krishnamurty, K., K.S. Krishnaswamy, and P.D. Sharma [1987], '*Determinants of Saving Rates in India*', Journal of Quantitative Economics, Vol. 3, No. 2, July, pp. 335-357.
14. Majumdar, N.A., T.R. Venkatachalam, and M.V. Raghavachavi [1980], '*The High Saving Phase of the Indian Economy: 1976-79 - An Exploratory Interpretation*', RBI Occasional Papers, Vol. 1, No. 1.
15. Mavrotas, G., and R. Kelly [2001], '*Old Wine in New Bottles: Testing Causality between Savings and Growth*', The Manchester School, Vol.69, pp.97-105.
16. Mishra, D. [2006], '*Can India Attain the East Asian Growth with South Asian Saving Rate?*', Preliminary Draft, May 19, The World Bank.

17. Muhleisen, M. [1997], '*Improving India's Saving Performance*', IMF Working Paper, No. 4, January.
18. Pandit, B.L. [1991], *The Growth and Structure of Savings in India - An Econometric Analysis*, Oxford University Press, India.
19. Raj, K.N. [1970], '*Some Issues Concerning Investment and Savings in Indian Economy*', in E.A.G. Robinson and M. Kidron [eds.]. *Economic Development in South Asia*, Macmillan, London.
20. Rakshit, M. [1982a], '*Income, Saving and Capital Formation in India: A Step Towards a Solution of the Saving-Investment Puzzle*', *Economic and Political Weekly*, Vol. 17, Nos. 14 to 26, April, pp. 561-572.
21. Rakshit, M. [1982b], *The Labour Surplus Economy: A Neo-Keynesian Approach*, Macmillan, New Delhi and Humanities Press, New Jersey, USA.
22. Rakshit, M. [1983], '*On Assessment and Interpretation of Saving-Investment Estimates in India*', *Economic and Political Weekly*, Vol. 18, May, pp. 753-766.
23. Rao, V.K.R.V. [1980], '*Savings, Capital Formation and National Income*', *Economic and Political Weekly*, Vol. XV, No. 22, May 31.
24. Rao, V.K.R.V. [1983], *India's National Income 1950-1980: An Analysis of Economic Growth and Change*, Sage Publishers, New Delhi.
25. Ray, P. and D. Bose [1997], '*Growth, Saving and Investment in the Indian Economy: Trend, Composition and Relationship*', RBI Occasional Papers, Vol. 18, Nos. 2 & 3, Special Issue, June & September.
26. Shetty, S.L. [1990], '*Saving Behaviour in India in the 1980s*', *Economic and Political Weekly*, Vol. 11, March.
27. Sinha, D. [1999], '*Saving and Economic Growth in Sri Lanka*', *Indian Journal of Applied Economics*, Vol. 8, No. 3, pp. 163-174.
28. Sinha, D. [2000], '*Tests of Granger Causality between Saving and Economic Growth in the Philippines*', *Journal of Social and Economic Development*, Vol. II, No. 2.
29. United Nations [1968], *System of National Accounts*, New York.
30. United Nations [1979], *Manual on National Accounts at Constant Prices*, Series M, No. 64.
31. Working Group on Savings [1982], *Capital Formation and Saving in India, 1950-51 to 1979-80*, Report of the Working Group on Savings [Chairman: K.N. Raj], Reserve Bank of India, Mumbai.