INTRODUCTION

THE present volume is the outcome of a seminar organised by the NIPFP in November 1988 at the instance of the Planning Commission.

Recent trends in savings in the Indian economy have been a matter of concern. Breaking out of a low level of less than 10 per cent at the beginning of the plan era, the ratio of gross domestic savings to GDP went up steadily for nearly three decades. In the second half of the 1970s, the saving ratio had reached 22.6 per cent of GDP, compared to about 15 per cent a decade earlier. Thereafter the growth impulse in savings seems to have got dampened. According to the new series of National Accounts, the rate of savings in the Indian economy has been stagnating in the 1980s at about 21 per cent of GDP. The saving ratio was less than 20 per cent during the years 1982-83 to 1984-85. It went up to 22 per cent in 1985-86 but declined to 21.6 per cent in 1986-87 and 21.1 per cent in 1987-88. From indications it would seem that the level of savings contemplated at the end of the Seventh Plan is unlikely to be realised. This is far from an encouraging augury for the Eighth Plan.

It is now acknowledged that a high rate of savings by itself is no guarantee for a high rate of output growth. The process by which savings are converted into actual investments, the structure of investments, and efficiency in their utilisation play a crucial role in growth. This explains the present shift in emphasis in Indian thinking on growth strategy to the quality of investment rather than on its mere volume. Nevertheless, a high level of capital formation and adequate flow of domestic saving is still believed to be a necessary though not sufficient condition for development, especially for a country like India aiming at largely self reliant growth. With increasing difficulty on the balance-of-payments front, India has in any event to look for ways in which its domestic savings rates can be stepped up while making every effort to make the best use of the capital already created in the economy.

It is in this context that a seminar to analyse the trends in savings and factors underlying stagnation was thought necessary. The objective was to take a hard look at the trends and try to identify the factors responsible for the declining trend. Some time ago, questions had been raised about the reliabilty of the savings estimates. The methodology of the estimates and the data base were then gone into at considerable length by the Working Group headed by Prof. K.N. Raj. While nothing seriously wrong was found in the earlier savings estimates, the CSO has now brought out a new series of National Income Statistics (with 1980-81 as the base) along with revised figures on savings and capital formation. On the face of it, there are substantial changes in the figures in the absolute. Apart from seeking to update the source of data, the new estimates incorporate several notable methodological changes. Whether these changes are conceptually sound and whether the basic trends as derived from the new series are significantly different from those suggested by the old series, needed careful examination. Analysis of the trends has to go into the sectoral behaviour as well. Further, it is necessary to look at the structure of savings in order to judge the extent of financial intermediation taking place in the economy and assess the efficacy of alternative instruments in achieving the saving targets and also secure the intersectoral flow of available savings into desirable channels of investment.

Keeping these in view, the seminar was so structured as to focus on the trends in the first instance—whether the new series indicated any radically different trend in savings from those shown by the old series—and then take a close look at the methodology underlying the composition of the new series, both in the aggregate and sectorwise.

The issues arising out of the trends in saving estimates, their implications and areas for further research were spelt out succinctly by Professor Sukhamoy Chakravarty in his inaugural address. For reversing the current trends in domestic savings as was reportedly postulated in the exercises for the Eighth Plan, a better understanding was required of the behavioral forces which influence the major variables like savings and consumption both in the public and private sectors of the economy. For this purpose, it is necessary to examine the behaviour of savings in the aggregate as well as at the sector levels.

In this context Chakravarty referred to the commonly held belief that the aggregate savings rate in the economy could be increased if only the public savings could be raised. Implicit in this proposition is the assumption that savings rate in the private and the public sectors are totally independent which might not be the case because of the many interrelations among aggregate magnitudes like savings and income. If suppose, in an attempt to improve the saving performance of the public sector, the government decides to raise the administered prices, would it have no impact on the savings behaviour of the household sector, he asked. This underlines the need to analyse the interrelationships between sectoral behaviour and aggregate savings. This, he clarified, was not to suggest that the Government should not raise taxes or re-examine the policies relating to subsidies and administered prices but only to sound a note of caution that these policies alone cannot remove the savings constraint. He felt that something deeper was involved and in that connection pointed at the growth of consumerism as a very major factor. He also drew attention to the role of financial intermediation in financing public investment and the conflicting theories regarding the impact of flow of foreign savings on domestic savings. Factors underlying the low level of private corporate savings also required some analysis and explanation. The tendency on the part of the Indian private sector to rely more on borrowing than on own funds contradicts Kalecki's theory of increasing risk. Whether this is caused by institutional factors or government policies in not allowing any private enterprises to go bankrupt, needs investigation.

Turning to the new series of National Accounts, Chakravarty noted that the basic difference arises from the sharply increased estimates of consumption of fixed capital. Correct estimation of capital consumption, though not relevant for short-period demand management—for which gross investment and gross savings were of greater concern—is now thought important for an idea of sustainable rate of growth. Depreciation allowances are also of relevance in the context of sectoral financing and focusing attention on the possibility of bunching of investment for replacement purposes, to maintain the same rate of growth and the need for financial intermediation in a specifically directed sense. The basis on which the new estimates have been made needed to be clarified, he felt.

He also said, India's saving performance is high—an "outlier"—compared to other low income countries. The explanations in terms of either differential behaviour of sector price levels casting doubt about the level of real capital formation or the possibility of greater interest elasticity of saving in India do not seem to be adequate. More light was, therefore, needed on the determinants of savings behaviour in India, he concluded, for formulating sound policies. He also expressed some doubt as to whether the view that savings constitute a constraint on growth was valid. Whether causation runs from savings to investment as assumed in a purely supply-centric growth process or the other way round—a question which refers to the macro-dynamic processes of adjustment—also needs to be analysed if econometric models are to throw light on policy questions, he concluded.

The papers presented at the seminar addressed several of the issues posed by Chakravarty. Broadly, these may be grouped under the heads: (*i*) methodology, (*ii*) overall trends in the savings behaviour of the Indian economy in the aggregate and their determinants, (*iii*) saving behaviour at the sectoral level, and (*iv*) potential for saving in the economy. The impact of the revision in the NAS with 1980-81 as the base year on the trends observed earlier and the explanation offered in the past by researches were also discussed. The seminar benefited greatly from a paper presented by the CSO indicating the methodology adopted in carrying out the revisions in savings estimates.

Methodology

The paper from CSO on "Methodology of Estimation of Domestic Savings" gives the factual details of the method of estimation with particular reference to the new series but makes no critical evaluation of the methodology, Vaidyanathan in his paper makes a critical evaluation but primarily of household savings in physical assets and that too with reference to the methodology adopted in the early seventies. These approaches have been revised substantially since then, particularly in the context of availability of new data both from the NSS (e.g., AIDIS) and otherwise.

In the contest of the New Series of Savings, Chakravarty particularly questioned the estimation of consumption of fixed capital. According to him, because of the substantial revision of the levels of consumption of fixed capital, even in the base year the difference being large, gross savings have to be written off by as much as nearly 50 per cent in order to arrive at the estimates of net savings. However, he felt that, though the CSO publications do mention that the life table of the various types of physical assets have been taken into account for measuring depreciation, it is not clear whether this has been done with the care that is needed. Although it is quite plausible that the estimate of depreciation in the old series might have been an underestimate, the basis on which the new estimates have been prepared need to be thoroughly examined because in sectors like transport, communication, electricity and gas, the results seem to suggest that in these cases the capital stock might have been undermaintained which might lead to a bunching of investment requirements for replacement purpose in the coming years for which necessary resources might not be available and even if the resources were forthcoming these investments will be required merely to maintain the current rate of growth.

Ghosh, on the other hand, argues that in spite of all the limitations, the estimates of savings at current prices are perhaps more accurate than any of the other macro-economic aggregates. This conclusion, of course, is directly based on the fact that with increasing monetisation of the economy, the gross/net savings in physical assets—which is subject to unknown error because of the absence of cross-checks—is now a relatively small proportion of total savings. Even if not on other grounds, one would be tempted to support the views expressed by Ghosh on the mere fact that the savings estimates—the savings in financial assets, to be exact—have a sufficiently extensive and current data base which is not equally true of the estimates of capital formation as they are often based on proportionalities, etc. at different stages which are not equally supported by evidences and data sources.

Overall Trends

The papers, "Saving Behaviour in India : New and Old Series and Implications" and "Savings in India: Some Broad Reflections" authored by K. Krishnamurty jointly with P.D. Sharma and Arun Ghosh respectively investigate the problem of stagnation in rate of saving. Whereas Arun Ghosh attempts to identify the factors which possibly have led to this trend in the recent past, Krishnamurty and Sharma attempt to investigate the causal relationships empirically using the actual data on saving—both the old series and the new series for the time-trend study.

The point to be kept in mind, according to the authors, while judging the rapid increase in the rate of savings in the seventies is the high level of remittances from expatriate Indians during the seventies. According to Ghosh, these remittances from expatriate Indians working abroad are *not* part of domestic savings though they may be deemed to be national savings and therefore to that extent measures of domestic saving should be independent of remittances.

Reviewing the work already available on normal income and the current income hypothesis as well as the differential propensities to consume/save between agricultural and non-agricultural sectors and the role of inter-sectoral terms of trade, Krishnamurty and Sharma come to the following conclusions :

(*i*) Empirical evidence through cross-sectional studies based on the survey results of the National Council of Applied Economic Research tends to support the normal income hypothesis and consequently lags in the response of saving/consumption to income. The time-trend studies at the same time indicate that saving rates have a positive association with income growth.

(*ii*) Propensity to save in the agricultural sector is lower than that in the non-agricultural sector though this difference appears to have narrowed.

(*iii*) Shifts in intersectoral terms of trade in favour of agriculture have an adverse impact on savings rates.

The above results particularly with reference to differential propensities to save between agricultural and non-agricultural sectors and the role of inter-sectoral terms of trade partly answer the questions raised by Ghosh regarding the possible recent sources of household savings (which contributes the major share of total domestic savings) from outside agriculture, that is, in the main either from the unregistered manufacturing sector or from services sector (including trading activity). This, as indicated by Ghosh, is confirmed by the steep decline observed in the recent past in savings in the form of physical assets without any financial or monetary counterpart. Interpreting the results differently, one could perhaps therefore conclude that there is increasing stagnation—possibly a decline—in savings in rural areas and a marked increase in savings by the urban middle (and richer) classes over a wide range of households and not merely by the traditionally rich and well to do as reflected in the substantial increase in household saving in the form of financial assets.

Linking with the question of sharp rise in the levels of savings in the form of financial assets is the factor of financial intermediation. Krishnamurty and Sharma attempt to examine this question in terms of (*a*) the role of rate of interest in influencing saving behaviour and (*b*) strengthening of banking infrastructure over the years. The study of the interest rate as a determinant of the saving in India has restricted application because of the absence of data on interest rates in the unorganised financial sector. Limited studies undertaken by Krishnamurty and Sharma and other researchers using real rate of interest (i.e., nominal rate adjusted for rate of inflation) show a statistically significant positive effect of real rate of interest on aggregate savings for the economy as well as for the households. As regards the role of banking infrastructure, the empirical studies are limited to expansion of bank branches. The results in this case support the qualitative conclusions and indicate a positive influence in promoting savings. However, this phenomenon may not be equally important in the future because of the tapering off of the expansion of bank branches.

Other determinants like rate of inflation, liquidity and wealth have also been tried to explain consumption/saving behaviour particularly in time-series studies. None of the results are however statistically robust enough to come to any positive conclusion regarding their influence in increasing levels of savings.

This brings one to the basic question of deflation of savings and whether real rate of saving or measurement of savings at constant prices is meaningful and whether studies should be undertaken with deflated series of savings. The Raj Committee on savings had considered the question in detail and had recognised that considering the complicated conceptual and measurement problems of real domestic saving, the study of trends particularly in the case of household sector can be undertaken with both savings and income measured at current prices only and may be said to be appropriate. However, to re-examine the issue, three papers, *viz.*, those by Ghosh, Vaidyanathan and Shetty discuss the problem. The paper by Roy Choudhury also discusses the problem and actually uses deflated data of household savings and personal disposable income to study the pattern of household savings in India. The deflator to be used for obtaining the series of savings at constant prices need not be the same for the total and for the household sector, argues Roy Choudhury.

Taking up the question of overall savings first, Ghosh argues that since in macro-terms I = S, the deflator for investment becomes, in effect, the deflator for savings. According to him, in theory, there is no other satisfactory way of deriving a deflator for domestic saving though some argue that the deflator for gross domestic expenditure may be a more meaningful deflator. This however would not give the *ex-post* identity of I = S and hence cannot be accepted.

Shetty in his paper makes a plea for producing *real* saving series as a memorandum item in National Accounts. He argues that savings of the private corporate sector, the public sector and of the household sector (in physical assets only) should be deflated by their respective capital formation deflators. Considering the relevance of life-cycle hypothesis and the social security component in financial savings, the deflator relating to household consumption expenditure may be applied to household saving in the form of financial assets. However, this approach of Shetty will not lead to the *ex-post* identity of I=S and therefore will leave an unexplained gap. This gap is not the same as "terms of trade" effect and therefore will have to be resolved on its own.

Vaidyanathan in his paper does not go into the basic question of relevant deflator for measurement of saving in real terms but assumes that it would be same as for investment to maintain the identity I=S in real terms. Vaidyanathan raises a more fundamental issue regarding the real and nominal savings trend. He stresses that the Raj Committee had argued that the real investment (and by implication, savings) has risen considerably more slowly than the nominal rates because the price of capital goods has risen relatively faster than that of consumer goods. If this is so, then according to Vaidyanathan, "the real returns to investment in terms of consumer goods must have steadily fallen over the last two decades. How is it that, despite this, the nominal saving rate rose so sharply? Has the shift in relative prices induced any significant changes in choice of technique, capacity utilisation, etc. leading to more efficient use of capital at least in the private sector?"

While addressing oneself to the functional relationship between disposable income and household savings (total or financial), one could argue that, *ex-ante*, it is real income and real consumption that determine savings and therefore for any functional relationship it would be desirable for both savings and income series to be deflated by the index of consumer goods and services prices. However, this would raise awkward issues in regard to the *ex-post* equality of savings and Investment and therefore to satisfy the pure theorists it might be desirable to use the same deflator as for investment. Results presented by Roy Choudhury therefore use only the latter series.

Savings Behaviour of the Sectoral Level

From the discussion so far it is obvious that for more positive answers to questions of the factors leading to stagnation of rate of saving in the eighties, one has to study the behaviour of savings at the sectoral level. In this context it is important to note, as elaborated by Ghosh, that (i) there has lately been a steep decline in the rate of public saving, particularly so in the eighties; (ii) corporate sector saving has stagnated at a low level all along and has even declined compared to the sixties and (iii) household sector saving has shown an increase over time and has remained to be the only sector of significance contributing to the overall domestic saving of the Indian economy.

Whereas both the inaugural address of Chakravarty and paper by Ghosh touch upon the issues which need to be considered for understanding the savings behaviour of the public sector and policy implications of raising the levels of pubiic sector savings, the paper by Virmani* on "Saving Performance and Prospects: A Historical Perspective" analyses the trend in public sector saving in relation to overall saving to draw conclusions regarding its influence on overall saving. Paper by Uma Datta Roy Choudhury and Amaresh Bagchi entitled "Public Sector in National Measures of Savings and Capital Formation", on the other hand, examines critically the revisions undertaken by the Central Statistical Organisation of the estimates of savings in the public sector as a part of the New Series on National Accounts and makes an assessment of the quality of the estimates. This is important because of the large difference between the old and the new series of public sector saving.

It has often been argued that the stagnation in savings behaviour of the economy can be reversed if only the public sector savings are increased. In other words, the saving behaviour in the household sector or the corporate sector remain invariant to policies adopted by the government conducive to increasing its own savings rate like increasing taxes or reducing subsidies or increasing the administered prices of various commodities and services. Virmani's paper addresses this problem and concludes that increasing public sector saving may, in

*This paper was not presented at the Seminar but is included because of its relevance to the basic theme of the volume.

the long run, help in reversing the process and resulting in a rising trend in the rate of saving in the future.

Chakravarty, on the other hand, felt that it will be necessary to analyse the interrelationships between sectoral behaviour of savings and the corresponding aggregate savings and also to look into the issues connected with the behaviour of sectoral savings before one could come to any simple answer to the role of public sector savings in influencing the overall savings rate. For example, he argues that a part of the strength of the household sector savings may very well have been derived from the various policies adopted by the government, in particular, its unwillingness to tax the agricultural sector and its unwillingness to charge full cost for the commodities and services produced and/or supplied by the public sector to different sectors or sections of the population.

The paper by Roy Choudhury and Bagchi examines the actual level of public sector savings as postulated in the CSO estimates—particularly in the New Series of National Accounts estimates. Thus a comparison of the estimates of saving from the old and New Series shows that the levels of net savings for the public sector have been revised downward by as much as 110 per cent in 1980-81 and 270 per cent in 1984-85. On the other hand, the revisions in gross savings are marginal. The principal factors leading to this extent of revision have been:

(i) imputation of provision of consumption of fixed capital for the administrative departments for the first time in the New Series and
(ii) estimation of consumption of fixed capital in respect of departmental and non-departmental public sector commercial undertakings using the Perpetual Inventory method which in essence requires the derivation of the figures from independent estimates of gross fixed capital stock.

This major change introduced in the New Series in the case of government administrative departments has serious implications.

Thus, for measurement of gross and net savings of government administrative departments in the light of the "imputation" of depreciation provision, the adjustments which are called for are very complicated. For the old estimates, total current expenditures were deducted from total current receipts to obtain net savings on the argument that repairs and maintenance expenditure undertaken for capital assets in government administrative departments is sufficient to maintain the capital services of the assets intact and no separate depreciation provision need be provided. Also, since the budget accounts are maintained on a cash basis, recording transactions as and when they actually occur, providing for depreciation provision would require its meaningful treatment departing from the general principle of budget accounting besides revision of the figures of total revenue and total expenditure which are the controlling totals of the account. The New Series of National Accounts do not apparently consider this aspect of the problem and obtain the revised estimates of net savings as old estimates of savings (without any upward adjustment for imputed depreciation provision) *minus* estimated figures of consumption of fixed capital. This obviously upsets the accounting balance, inflating the total expenditure of government administrative departments by the amount of consumption of fixed capital with no corresponding adjustment to total revenue. Obviously, the new as well as the old estimates of gross and net savings will need to be carefully adjusted if the estimates of gross and net savings are to be meaningful and realistic and the accounting balance maintained. This aspect obviously needs much further investigation before it can be more definitely concluded that the net savings of public sector are as low as are presented in the New Series of National Accounts.

Another aspect which needs to be mentioned in the context of a realistic measure of government savings has been brought forward by Ghosh in his paper. According to him, there are increasingly new types of government expenditure under the Rural Development Department of the Ministry of Agriculture, which are really of the nature of capital expenditure but may not be treated as such in the national income accounts. To the extent that funds under the RLEGP/NREP/DPAP and similar programmes lead to payments for direct capital formation in the rural areas, such expenditures from the Revenue Budget should be treated as "saving" by government, spent for capital formation in the rural areas. It is essential to examine this carefully as there is a possibility of such expenditures being treated as 'transfer payments' since they are often termed as 'subsidies' for the poor.

As regards the rate of saving of the private corporate sector, several basic issues have been raised in the inaugural address besides those in the paper by T. Rama Rao entitled "Saving of the Private Corporate Business Sector—Some Methodological Issues". The rate of saving in the private corporate sector has remained almost stagnant and it might have even declined in the recent past as compared to the sixties. This significant slowing down in the level of private corporate savings over the past twenty years or more needs a very careful analysis and explanation.

In this context, according to Chakravarty, it might be desirable to analyse first whether the private corporate sector is capable of getting resources from the household sector and then examine whether the existing institutional set-up really encourages the corporate sector to rely more on borrowed funds than on internal resources. Normally one would expect that there would be a tendency, in order to avoid increasing the risk, to shy away from greater degree of indebtedness than it is necessary. However, in the context of the special features of the Indian capital market and its fragmented nature, the inclination on the part of the corporate sector to rely more on borrowed funds may have to do with the government's unwillingness to allow any private enterprise to go bankrupt. It may be, as Chakravarty argued, that some of the government decisions have in fact been responsible in making it more attractive for the private corporate sector to seek more borrowed funds than plan for increasing their own internal resources. If that is so, then the argument for reducing the corporate rate of taxation on the assumption that it would lead to availability of more funds for investment for the corporate sector may not indeed be justified. Krishnamurty and Sharma emphasise the same aspect of private corporate sector saving when they state that "liberal availability of funds at relatively easy terms from term-lending and other public financial institutions could be a reason among others" for the long period stagnancy of the corporate sector savings rate.

Krishnamurty and Sharma go further and raise the basic question of the method of estimation and whether the stagnancy observed is not due to the particular method adopted for estimating total corporate sector saving by using the blow-up factor (paid-up capital proportions) applied to RBI survey data and the nature of the sample.

The paper by T. Rama Rao on the subject addresses itself to this very aspect and reviews the methodological issues which require examination in this context. According to him, the most important limitation, of course, is the deficiency in the blowing-up procedure. According to Rama Rao, though exercises carried out do suggest a meaningful correlation between the paid-up capital and the balance sheet items, no such association can be seen in the case of saving. Added to this are the facts that (a) paid-up capital figures are made available by the Department of Company Affairs only once in five years and provisional figures are used during intercensal years which need to be revised subsequently, leading sometimes to substantial revision to the figures of savings etc. (b) there exists variations in accounting years and accounting practices and (c) there exists different practices between companies like the written down value method or the straight line method for determining depreciation provision, which all introduce errors in the estimates of savings for the private corporate sector. To add to all this, is the fact that for the New Series, the CSO uses gross savings and gross capital formation figures as estimated by the RBI using the blowing up method but adopts the economic criterion for measuring depreciation and thereafter deriving the net savings and net capital formation figures. According to Rama Rao, "it is difficult to derive the current market value of fixed assets of companies based on which the depreciation provision is worked out. The value of fixed assets presented in the books of accounts is neither at original value not at current values as the companies revalue their fixed assets partly or fully at frequent intervals. In case the book values are revalued under the assumption that they are at acquisition costs, there is a possibility of revaluing the fixed assets which have already been revalued. This may lead to over-estimation of depreciation provision for the year". The estimates of savings for the private corporate sector therefore become questionable on many counts and unless these questions can be satisfactorily answered, no conclusion regarding corporate sector savings can be drawn.

The study of household sector savings took entirely different form at the seminar and the two papers specifically on the subject deal with it substantially differently. These are the paper by Bhatty and Vashishtha entitled "Rural Household Saving and Investment Behaviour 1970-71 and 1981-82" which draws upon the results of the longitudinal study (1970-71—1981-82) of the National Council of Applied Economic Research to present broad conclusions regarding the saving and investment behaviour of different categories of rural households; and the paper by Roy Choudhury entitled "Savings Behaviour of Households: Trends and Pattern", on the other hand, uses the data on Household Savings available from old and New Series of National Accounts Statistics to draw conclusions regarding the household savings behaviour since 1970-71 and changes therein. The latter proceeds to analyse the time seriesof household financial and total savings by the use of alternative savings functions and draw conclusions regarding the household savings behaviour in terms of average and marginal propensities to save and income elasticity of saving both at current and constant prices.

Ghosh in his paper, on the other hand, attempts to investigate the causes for the change in the pattern of household savings since 1970-71—in the form of shift towards savings in financial assets against savings in physical assets in the sixties and early seventies and also discusses the quality of the estimates. To illustrate, in 1 while 960-61 household savings in financial and physical assets were more or less of equal proportion, in 1986-87 the former increased to as much as 61.8 per cent of the total household savings and the latter correspondingly declined to 38.2 per cent. The paper by Krishnamurty and Sharma also studies the pattern of household savings in terms of causal factors in a very limited way. Vaidyanathan in his paper "Savings Estimates in India" also raises the question of reliability of the household sector saving but mainly refers to household saving in physical assets.

According to Ghosh, the derivation of estimates of saving by households in the form of financial instruments of saving, is subject to error because the holding of currency as well as diverse financial instruments by the public and the private corporate sectors are only roughly estimated, the balance of the incremental amount of all such savings instruments being treated as household savings. There also exists a strong possibility of the savings of unincorporated enterprises sector being underestimated. This can be so as there is evidence that a modern small sector is fast emerging in many parts of the country with their output not being always recorded and their saving also being not recorded because of their direct investment in the sector itself. All these factors are of utmost importance for reliable measurement of household savings.

It is therefore essential to examine the savings behaviour at a much more disaggregated level, to obtain detailed data on the ownership of financial assets, to attempt an urban-rural break up of savings and investment, and a source-wise classification of household saving. All these and other related information may perhaps answer some of the questions which arise in our mind.

The paper by Roy Choudhury, on the trend and pattern of household savings, is very much in line with the study of Krishnamurty and Sharma if one ignores the fact that the former refers solely to household savings while the latter to aggregate and sectoral savings. Starting with the premise* that the methodology adopted for the compilation of the gross savings estimates of the various institutional sectors in the New Series is broadly the same as in the old series (explicitely so stated in the *New Series on National Accounts Statistics with 1980-81 as base year*), the old series for the earlier period has been considered jointly with the New Series from 1980-81 onwards to study the pattern of household saving over the period 1960-61 to 1986-87. Since household savings in financial assets register a much higher increase than saving in physical assets the analysis is undertaken with three different series of household savings, *viz.*, aggregate household saving, household saving in financial assets *net* of liabilities and household savings in financial assets *gross* of liabilities. Also, the exercise investigates

*This premise is also supported by the results obtained by Krishnamurty and Sharma for the aggregate saving estimates.

the effect of rise in prices in determining savings behaviour of the households and therefore analyses the data both at current and constant prices.

The results present a picture of stability in the pattern of savings coupled with an increasing trend and rise in the value of marginal propensity to save between the two periods of 1960-61 to 1979-80 and 1980-81 to 1986-87. One can however question this increase in MPS over the two periods as they cover two different sets of data, *viz.*, the old series and the New Series and the latter presents an unusually high level of household financial saving. Vaidyanathan also raises doubts about the household sector investment in financial assets on the same count and feels that they need to be looked into more carefully.

A limited exercise has also been undertaken to investigate whether the households in India portray a stability in their savings behaviour with reference to permanent or normal income. For this two alternative measures of permanent income have been used. The exercise with total and financial household savings (net of liabilities) covering the period 1960 61 to 1986-87 and with household financial savings (gross of liabilities) for the period 1970-71 to 1985-86 as functions of personal disposable income suggest that 'normal' income rather than current income is more important factor influencing the current levels of household savings. Similar exercises by Krishnamurty and others also support the 'normal' income hypothesis. The results would thus imply lags in the response of household savings to income.

The exercise by Roy Choudhury also tests the Keynsian current income hypothesis, i.e., savings as a function of current income using both current and constant price series. In other words, simultaneously with the test of current income hypothesis the effect of inflation on household savings behaviour is tested. This approach is mainly to answer, if possible, the question as to whether inflation promotes savings particularly in the household sector. The results do not indicate the possibility of rise in prices being an important determinant of the levels of saving though it appears to have a moderate influence.

Another independent source of data which might be looked into in this context are the survey results (e.g., NCAER survey on household saving). The paper by Bhatty and Vashishtha attempts exactly this, using the data from the NCAER surveys for 1970 71 and 1981-82. However, at the seminar doubts were raised as to whether the limited small size of the NCAER household savings survey (4363 and 4947 households respectively for the all-India surveys of 1970-71 and 1981-82 and 3139 households for the panel data) gives reasonably reliable data and unbiased estimates to enable one to draw conclusions regarding the savings behaviour of the rural households. Bhatty and Vashishtha in their paper examine this question and attempt to justify the adequacy of the all-India and Panel sample sizes for analysing the income and savings behaviour of different socio-economic groups, arguing that this is to be judged by the standard error of the estimate of the population parameters and the number of sample observations in various cells representing cross-classification of different socio-economic groups. Enough details are however not included to test these criteria in their full and this may be kept aside for the present.

In view of this, it might be desirable only to refer to the overall patterns of rural household savings behaviour as revealed by the survey results and not to the actual figures and examine the extent to which this pattern is corroborated by other studies presented at the seminar (say, by Krishnamurty and Sharma).

The results show that the savings and investment rate of rural households at the all-India level increased significantly. This increase in the savings and investment rates in 1981-82 was principally due to the rise in the rate of financial saving as a result of both a rise in the rate of gross financial saving and a decline in the liabilities to gross financial saving ratio. This reduction of liabilities of the rural household sector was apparently due to the reduction of liabilities to indigenous moneylenders in mandi towns. This, according the authors, can be attributed to the rapid spread of bank branches in rural areas on the one hand and the expansion of FCI operations backed by price support policy, on the other. Krishnamurty and Sharma in their study have also found that the increase in the number of bank branches is a contributory factor to the increase in aggregate saving.

The details of composition of real gross capital formation in the household farm sector over the decade 1970-71 and 1981-82 shows a heavy tilt in favour of livestock and allied activities and decline in the use of farm machinery. Along with this there is also a moderate increase in investment in non-farm activities of the household sector. This phenomenon has also been referred to by Ghosh in his paper while investigating the factors leading to substantial increase in household saving in financial assets. Finally, looking into the pattern of saving of different groups of rural households classified by land ownership, the results of the survey show that all categories of households, except landless agricultural wage earners, had positive net financial savings in 1981-82 and saving rate had risen fast particularly for the marginal landowners who have made significant contribution to the growth in farm investment.

Potential for Saving in the Economy

Lall in his paper "Savings Potential and Mobilisation Strategy: Method, Estimates and Policy Issues" examines the possibilities of tapping savings potential in the household sector and the question of introducing new instruments to make this possible. On the basis of limited survey for the household sector, the author feels that potentials do exist and it is necessary to determine the strategy to promote and market the saving instruments and work out details of associated infrastructure like the operational cost in terms of the rate of interest on the saving deposit, building up of collection and servicing institutions and so on. Most of the participants however expressed their reservations about generalisations from a very limited sample like the one involved and felt that proliferation of savings instruments would only cause shuffling of the savings rather than an increase in it.

Conclusion

Even after having gone through the whole course of examining all the issues connected with measurement of savings both at the aggregate and sectoral levels and analysis of the available data, one is unfortunately not in a position to provide an answer to the basic question with which the whole exercise started, *viz*,, is there a convincing explanation to the savings behaviour of the Indian economy over the last 35 years? In particular, an answer to the question as to why the savings rate rose sharply in the late seventies and stagnate thereafter. Though the basic issue is yet to be resolved, the current examination of the method of estimation particularly at the sectoral level has raised doubts in one's mind about the reliability and accuracy of the savings estimates—particularly the New Series.

Even if the question of quality of data is left aside, no conclusion appears to have emerged regarding the basic attributing factors leading to the pattern of and trend in savings in the Indian economy as it has been since the fifties. This, however, can be no excuse for avoiding the basic question as to the means for reversing the process and examination of the potentialities for increase in savings in the future. Both Ghosh and Vaidyanathan in their papers have listed several studies which they feel should be undertaken in the future to understand the process fully. Krishnamurty and Sharma as well as Ghosh at the same time, list a number of policy issues which need to be considered and perhaps put into action to ensure that the reversal process does come through in the future. It might be worthwhile to conclude this introduction with the optimistic note that in the not too distant future it will be possible not only to undertake further studies but to come to a stage of understanding when the policy issues need no longer be based on surmises but on sound basis of data and analysis.

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