PART II
FACTORS AFFECTING THE SAVING RATE.

We may now consider the various factors which are likely to influence the saving rate in an underdeveloped economy. Several noteworthy efforts have been made by economists to probe into the determinants of the saving function. Usually two statistical methods are employed to explain the saving behaviour. (1) The historical saving function explaining the behaviour of savings over a period of time and (2) the cross-section saving function explaining the saving behaviour of various units during a given period of time, usually a year.

The saving behaviour is determined, it was thought until recently, by the absolute level of income. Marginal propensity to consume being less than unity, the saving rate will be higher at higher levels of incomes. This hypothesis was supported by the available budget studies. However, further research in this sphere was necessitated by the revelation of the long term stability of the saving rate. An attempt was made to justify the absolute income hypothesis by introducing wealth as an additional variable. Empirical evidence was also provided to show the dependence of savings upon the relative income position of the households in the national income pyramid. The theoretical basis for this.

28 See fn. 5.
hypothesis was provided by the observation of the "Interdependence of consumers' preferences" and "emulative drives". An ingenious attempt is also made to establish relationship between savings and permanent income rather than absolute or relative income.

How far will these studies help us in finding out the determinants of saving in an underdeveloped economy? Underdeveloped countries can study with benefit the various explanations offered for the long-term stability of the savings function. Underdeveloped countries striving to achieve a higher rate of saving may watch with benefit the behaviour of factors like the pace and pattern of urbanization, the degree of interdependence of consumers' preferences, the distribution of income and the pressures of population. In this context, some noteworthy contributions have been made. At the same time it may be noted that our knowledge about the determinants of saving function is limited. A comprehensive and rewarding study of the saving function in an underdeveloped economy will be restricted by two important factors (1) The analysis of the saving behaviour has recognized the importance of the socio-psychological factors; however, their impact upon saving trends remains to be studied. A satisfactory explanation of the saving trends will require firstly, a study of the attitudinal and motivational factors and, secondly, their integration with the time-series data.

33 Katona, G. "Psychological Analysis of Economic Behaviour", London, Macgrew Hill, 1951, p.175. National Council's Urban and Rural Saving Surveys should provide useful material for such a study.
The analysis of savings suffers from one more limitation. The saving functions are usually studied at national aggregate level. A study of the behaviour of savings at the aggregate level is no doubt useful, and therefore, necessary. However, in an underdeveloped economy making deliberate efforts for rapid development, a more detailed study of the saving function at the micro level may prove more useful.

At micro level saving functions can be studied for different sectors, classes and communities of an economy. We can also observe the behaviour of these sectors and classes during the process of change. When the economy is developing how will the saving functions behave as between different sectors and groups? If the movement is uneven as between different sectors and classes, how are we to explain such a divergence? The observation of the uneven movement raises the further question of the time-lag with which these functions are moving. In the case of an underdeveloped economy it will also be necessary to locate the strategic factors which may have to be influenced in order to secure the desirable movements of the saving functions in various sectors and classes.

Apart from the level of savings, a study of the structure and forms of savings will also be equally useful. Separate saving functions for the different forms of savings can be derived and studied. How is the total quantum of savings distributed as between different forms of savings? What are the reasons for the prevalence of such a pattern? How will the relative importance of the various forms of savings change during the
process of growth? At what pace and in which direction are the changes taking place? These are some of the questions that should merit attention while studying the saving function.

The task suggested above is ambitious. However, the absence of such a detailed study puts a definite limit to our knowledge about the saving function. The type of detailed analysis suggested above, has yet to be carried out for the advanced economies. Therefore, the difficulties that such a study is likely to entail in an underdeveloped economy can be easily imagined. Underdeveloped countries do not possess adequate statistics necessary for the formulation of such saving functions. Even in India, which can boast of having a good record of statistics, systematic attempts to collect statistics regarding savings have been made only recently. So long as adequate and reliable statistics are not available our knowledge about the determinants of the saving function is bound to be limited. In view of these limitations the task that we have attempted here is more modest. Our main concern will be to study some of the factors which are likely to influence the prospects of saving in India.

What has been the Indian experience regarding the behaviour of saving in the past decade of planning? Before considering the Indian experience it may be noted that the figures of saving rate should be taken with caution, since saving ratio by itself does not necessarily indicate the true picture of the economy. Generally the saving rate as it is given, underestimates the total savings and overestimates its significance in increasing the production potential. It gives an underestimate of total savings in the sense
that it neglects the non-monetary direct savings taking place in the economy (i.e., saving in kind as different from cash). It is likely to be an overestimate in the sense that all the savings included in the calculation of the ratio are not utilized for development purposes. That is why we have cases of the correlation of high rate of saving with a relatively lower rate of development.

The following table gives figures regarding savings in India during the period 1950-51 to 1958-59. Since the Reserve Bank's estimates of year to year changes may not be very reliable we take the 3 yearly averages for this purpose.

**TABLE 1.1**

**VOLUME OF SAVING.**

<table>
<thead>
<tr>
<th>Annual average</th>
<th>(Rs. in crores at 1948-49 prices)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving</td>
<td>Total saving</td>
</tr>
<tr>
<td></td>
<td>S/y ratio</td>
</tr>
</tbody>
</table>


As compared to period I, when the total savings amounted to Rs. 538 crores, savings in period II amounted to Rs. 753 crores an increase of nearly 40 per cent. The S/y ratio also shows marked improvement by 1.4 per cent. However, the performance in period III as compared to period II is not so encouraging. The annual average in absolute terms increased by 17 per cent only, while the S/y ratio showed an improvement by 0.6 per cent. The figures clearly indicate that inspite of all our efforts for
reaching the take-off stage, the performance in the sphere of raising the saving rate has been disappointing. 34

If an economy requires 15 to 20 per cent of saving rate for self-sustained growth, what are the prospects for India in reaching this high rate? The attainment of such a high rate of saving may be possible in two ways: (1) Savings out of existing incomes may be increased. If it is to help the process of development both consumption-saving patterns and investment preferences will have to be positively influenced. This requires a study of the potential saving in the economy. This aspect of the problem is discussed in the second chapter. (2) To raise the rate of savings an economy may save more out of its incremental income. More emphasis is usually placed upon marginal savings since it is usually easier to raise higher savings from incremental income. The concept of the marginal rate of saving assumes considerable significance in this context. Unless the marginal rate of saving is stepped up, the savings pool available for development cannot increase to the required extent.

The Planning Commission assumed the marginal rate of saving at about 20 per cent in the First Plan and above 20 per cent for the Second Plan. According to the National Council estimates the marginal rate of saving may be about 20 per cent.

34 We have not succeeded in the realm of savings though considerable qualitative improvement have taken place in the Indian economy during the last decade. These efforts were, mainly aimed at evolving an appropriate framework for economic growth. For details see G.S. Sahota, "Is the Indian Economy in the Take-off Stage?" I.E.J., Sept. 1960
The National Council's estimate has to be accepted with some reservations for two reasons. Firstly, as the report writes its estimates of savings for 1948-49 and 1957-58 (two end years of the series) are not as reliable as for other years. Secondly, the Council has estimated the marginal rate by fitting a trend line, which may not be reliable in view of the small number of years to which the study pertains. The Reserve Bank estimate of marginal rate for the three years of the Second Plan (as compared to first Plan period) comes to about 17.3 per cent.

If the Planning Commission target of the savings rate of 17 to 18 per cent is to be achieved in 1976-77 (with the given growth rate of national income) the marginal rates of savings should be nearly 20 per cent, 25 per cent and 30 per cent respectively during the 3rd, 4th and 5th Five Year Plans.

We may consider now the factors which are likely to influence the savings prospects in India. In the Indian economy nearly 4/5th of total savings were generated in the Household sector during the period 1950-51 to 1958-59. The share of the Government and Corporate sectors in total savings during the same period is small. Since adequate information is not available, attempts have not been made to estimate savings for 1948-49. See K.N.R. Avadhani, A.K. Gosh, R.M. Honavar and M.L. Trikha "Savings in the Indian Union, 1949-50 to 1954-55" in "Papers on National Income and Allied Topics" Vol. I, Asia 1960, p.107. See also Shah H.R., "A Note on the National Council's Estimates of Savings in India", I.E.J. Vol. IX, No. 2, Oct. 1961, p.251.

See India, Govt. Planning Commission "Third Five Year Plan", p.29.

This does not represent the savings of the individuals only. It also includes savings of "non-corporate business (including agricultural sector) and private collectives like temples, educational institutions and charitable trusts" (See R.B.I. Bulletin, Vol. XIV No. 3 March 1960, p.297). This percentage will be higher if the non-monetized savings and investment taking place in the household sector are taken into account. For details see Chapter II.
period amounted to nearly 14 per cent and 5 per cent respectively. The small magnitude of savings generated through both the Government and Corporate sectors partly explains the absence of a high rate of savings in the Indian economy.

In the development of an economy the size of the profit sector may play the crucial role of a leading sector. Profit sector can generate savings as well as act as an agent for mobilizing more savings. Similarly the requisite savings for development may be provided by the agricultural sector. The surplus from the agricultural sector may be voluntary or compulsory through taxation or the creation of adverse terms of trade. In this sense both the profit sector as well as the agricultural sector may play a crucial role in providing the requisite savings for development.

However, the surplus provided by any one sector may not be sufficient for the rapid development of an overpopulated underdeveloped economy. It is in this context that we have to study the various factors which are likely to influence the prospects of savings in an underdeveloped economy like India.

**INSTITUTIONAL FRAMEWORK:**

Inadequate or inappropriate institutional framework - both financial as well as non-financial - is likely to come in the way of generating and mobilizing savings. A community's organizational framework as well as policies including established practices, customs and laws constitute its institutional environment. The institutional framework reflects the basic values cherished by the people and indicates their attitude towards material advancement. "The inadequacy of technology and
capital formation may be due less to a shortage of information about techniques or of potential savings, than to shortages of right kind of institutions ....

Though institutions themselves can not add to the savings pool they influence the magnitude and pattern of savings in the economy. The actual availability of savings for development out of a given pool of potential savings will be different with different institutional framework. Viewed in this context, the existence of an appropriate institutional framework seems to be an important pre-condition for generating and mobilising adequate savings for development. Institutional framework and economic development being mutually inter-related, certain changes in institutions may precede development, while others might emerge as a result of development. If the institutional changes are very rapid and far-reaching, affecting the deep rooted values of the people, the prospects of mobilizing more savings may even decline (at least in the short period).

Again, a "cultural load" may be created when institutions are superimposed upon a community which can not grasp or absorb the spirit of emerging values. The persistence of such a situation partly explains the Indian record in the rural sector. Finally, as the Indian experience shows, comprehensive changes and improvements in the institutional framework by themselves will not be enough in generating and mobilizing savings, if other factors are not favourable to this. This leads us to a consideration of several other factors.

INCOME AND SAVINGS:

The relationship between income and savings is crucial in our analysis since income is one of the most important factors influencing saving in an economy. It is now realised that savings will be affected by current income, accumulated assets and changes in incomes. We will briefly consider the importance of each of these aspects in the case of an underdeveloped economy.

SAVINGS AND CURRENT INCOME:

A close correlation exists between the levels of current incomes and savings. It has been found that changes in the current level of income constitutes the most important single factor explaining the variations in savings. For example, Goldsmith's data regarding United States suggests that variations in current income alone accounted for more than two-thirds of the year to year changes in current personal savings for the entire period of 1897-1949. The current low level of saving in an underdeveloped economy like India can be explained as due to the low level of income. It is possible that even at a lower level of income, larger savings can be secured through a more appropriate pattern of income utilization. While accepting the scope for such measures, it should be recognised that the low level of income places a definite ceiling on the

In the Delhi saving survey though positive and negative savers were found in each income class, by and large savings were related with current income, i.e. individuals with higher incomes had higher rates of savings. See N.C.A.E.R. "Delhi Saving Survey - A Pilot Study", Asia 1960, p.10. The results of the urban saving survey recently published by the National Council also reveal current income as the most important determinant of saving. The report rightly stresses to accept this relation with caution since it is established on the basis of unadjusted survey estimate accounting for only 20 per cent of the total net saving. "Urban Income and Saving", New Delhi N.C.A.E.R., 1962, p.74-79.
saving capacity of such an economy. Thus the low level of current income is one of the important determinants of the low level of savings in an underdeveloped economy. It is true that the attempt to explain the savings behaviour merely in terms of the current levels of incomes suffers from certain limitations. As we shall see, such a hypothesis fails to explain the long term stability of the savings function when incomes are increasing. The saving rate may or may not increase at a higher level of income due to the interplay of a variety of forces; however, it should be realised that the savings capacity of an economy increases with increasing incomes.

SAVINGS, PAST INCOME AND ASSETS:

The amount of income that will be saved also depends upon the past income. The consumption standard is determined not only by current income but also by the highest level of income or consumption attained in the past. Therefore, even when the current income falls temporarily this may not lead to an equivalent fall in consumption. Usually the fall is likely to be more pronounced in case of savings, depending upon the assets accumulated. To what extent savings will be affected will depend upon the value of the asset holdings as well as the forms of assets owned. If the current income is lower, a higher level of consumption attained in the past usually induces an individual to maintain his living standard and asset holdings (particularly liquid assets) facilitates his dissavings. Dissavings may also take place through borrowing, if possible. In an underdeveloped economy where a majority of the people are at the subsistence level a fall in income may result in (a) some
reduction in consumption expenditure (b) dissavings through sale of assets and (c) if necessary, borrowing.

The availability of assets is important from another point of view. The assets’ having productive potentiality may be lying idle. If, with some marginal saving these assets can give attractive returns within a short time, it is likely to increase savings out of increasing income.40

SAVING AND CHANGES IN INCOME

The behaviour of savings with increasing income provides an important problem for our analysis. In an underdeveloped developing economy, when incomes are actually increasing or are expected to increase what will be the prospect for savings? Left to themselves people may not save more with increasing incomes. The reason for such an outcome is that apart from current or past income the relative income of the people also plays an important part in determining saving rate. The consumption pattern of an individual depends not only upon the absolute level of income but also upon his relative income position in the scale of income distribution. The absolute income hypothesis failed to explain the long term stability of the saving rate as it assumed the independence of consumers preferences. The inter-dependence of consumer’s preferences should be taken into account in explaining the saving behaviour. It was feared that the demonstration effect generated through such inter-dependent consumer’s preferences, may not allow the saving rate to increase. However, it can be argued that the demonstration effect does not operate in only one direction.

Just as it raises the aspirations of the people for a higher standard of living, it also implants in them a desire to work and save more in order to achieve a higher standard of living. We do not have the empirical evidence to evaluate and compare the "consumption increasing" and "income-generating" impacts of the demonstration effect. The experience of India leads us to believe that the consumption increasing impact may be more immediate and powerful at least in the initial stages. However, usually, both the forces are likely to operate in the system, more or less, depending upon the given circumstances. The relative impact in both the directions will depend upon the various factors like the population characteristics, the pace of urbanization, the degree of integration in the social as well as economic structure, the flow of innovations etc. Their relative intensity or strength is also amenable to control in a planned economy. For example, the income-generating impact will be determined, among other things, by the income earning opportunities available in the economy.

So much about the changes in income. The impact of expectations regarding income may be considered. It may be true that saving rates will be higher when expected incomes are uncertain. For example, in U.S.A. it has been found that farmers and business-men, having uncertain incomes have fairly high propensities to save as compared to other groups. The behaviour of these two groups tend to support the permanent income hypothesis. We do not have comprehensive data to test the validity of this hypothesis for India. The Delhi Saving Survey, though restricted in its scope, throws some light on this aspect. For Delhi, groups (i.e.
self-employed people) having uncertain income have higher saving rates as compared to others having stable income. This finding corroborates the permanent income hypothesis. However, another important finding of the Delhi survey goes against this hypothesis. The survey revealed wide variations in the saving rates among people with income certainty. In this respect the saving behaviour of farmers also provides an important case study. With income uncertainty, this group should have, according to the permanent income hypothesis, a higher saving propensity. The available estimates, however, suggest a very low saving rate for this group. A final answer to this question can be given only when more reliable and comprehensive data are available regarding the agricultural sector.

Apart from the income, absolute or relative, past or present, there are various other factors likely to influence the saving prospects. They will be briefly considered now.

**DISTRIBUTION OF INCOME:**

The pattern of the distribution of income also determines the level of savings. Usually the unequal distribution of income helps in promoting saving, if it is in favour of classes whose propensity to save is higher. Saving rate may not be higher if some of the classes favoured by the distribution of income are not habituated to save and invest productively. This partly explains the prevalence of the low level of savings in some of the underdeveloped countries like India. We examine this problem

41 Op. cit. p.23. See Also "Urban Income and Saving", p.82-84
in greater detail in the third chapter.

INVESTMENT OPPORTUNITIES:

As we have seen previously investment opportunities may be present both in the public as well as private sectors of the economy. However, adequate funds may not be available for this purpose. It is necessary to find out the ways in which the supply of funds available to both the public and private sectors can be increased. An examination of the asset structure and yield structure of the economy provides a clue to this answer. If the people are to be persuaded to part with their money it is necessary to put before them a variety of assets which can satisfy the requirements of various investors. Similarly, the yield structure can also be improved. The yield structure often does not reflect the scarcity of capital prevailing in such an economy. More attractive returns on savings may help in inducing the people to save more.

INFLATION SENSITIVITY:

Inflation sensitivity of a developing economy resulting either from inflationary financing or the inherent structural rigidities of the system may adversely affect the savings prospects in the economy. It is at times, contended that mild inflation, by re-distributing income in favour of the profit-sector, will help the development process. Our analysis, however, reveals that the resource prospects are not likely to improve as a result of inflation. (See Chapter III).

POPULATION PRESSURE AND SAVINGS:

Along with capital accumulation and technological progress, the size and quality of population will also be an important
determinant of growth. The prospects of savings in an under-developed economy will depend upon the population pressure. If the pressure of the existing population is heavy it will be difficult to set aside sufficient savings for the rapid growth of the economy. The problem of savings becomes all the more difficult when the population pressure is likely to increase. A high growth rate of population is expected in an under-developed economy like India partly due to the increasing incomes, and mainly, due to the technological revolution in the sphere of public health. Two important results follow from such development. Firstly, the size of the dependent population will increase in the economy, at least in the short period. The population below the age of 15 will have a claim on the resources of the economy without contributing anything to its production pool. A fall in death rates will also increase the

42 Coole, A. & Hoover, E. "Population Growth and Economic Development in Low Income Areas", Princeton, Princeton Uni.Press, 1958. The authors write in this connection as follows:

"The economic advantages of low fertility thus begins immediately and cumulate for an indefinite period into the future. The immediate advantages are substantial; a 50 per cent linear reduction in fertility in 25 years provides in 3 decades an income per consumer some 38-50 per cent higher than would occur with sustained fertility. In 25 more years, reduced fertility would yield an income per consumer about twice as high as with continued high fertility. (see p. 534)

43 Ibid. p. 246
population in the retirement age-group. This group is also known for its dissaving. However, these dissavings may be counter-balanced to a certain extent by higher saving in the age-group 50 - 60. Secondly, an increase in the size of the family is likely to reduce its savings. Saving studies indicate a positive correlation between the smaller size of the family and higher savings. In the United States it has been found that savings have increased as a result of the reduction in the size of the family.

In India population is increasing at the rate of nearly 2.2 per cent per annum. This is likely to involve a diversion of the resources for the production of consumer's goods in order to maintain the same standard of living for the people. This will also necessitate more investment on social and economic overheads. Thus an increasing population pressure creates the necessity of saving more on the one hand, and on the other, undermines the ability of the economy to save more. Population growth may, under certain conditions, induce an economy to achieve higher growth rate. However, in the case of an underdeveloped economy like India such a growth in population is likely to act as a "Income depressing" factor rather than "Income increasing" factor.


Delhi saving survey could not reveal conclusive evidence regarding the effect of the size of the household on savings. Though the data available were meagre, there was some evidence to suggest the inverse correlation between the two. See p.17, National Council's Urban Saving Survey also gives a similar conclusion. See p.86.
STATE POLICY:

It seems that saving rate will not rise of its own unless the state takes deliberate steps for increasing the saving rate. The low level of income, the demonstration effect, the inflation sensitivity of the economy, the high population pressure, and the need for creating an appropriate institutional framework all support this contention.

The state is likely to play a decisive role in raising the saving rate in the economy. This is especially true of a country like India where economic development is pursued through deliberate and planned efforts. The state will make a direct impact upon the s/y ratio by mobilising a large part of the savings in the economy. The impact of its direct efforts will depend upon the size of the national income, the amount of national income which the state is in a position to mop up and the uses to which these funds are put. The state is also likely to make an indirect contribution in raising the saving rate. The indirect impact will be determined by the inducement mechanisms that it provides in the economy and the extent to which it integrates the economy for the effective operation of the state policy. The role of the Government is, in our view, one of the most important factors which is likely to determine the supply of savings in the Indian economy. Looking to the magnitude of investment which the state itself is to make, and the impact that its policies will have upon the private sector, we propose to discuss the problem of savings in an underdeveloped economy like India by keeping the state in the centre of our discussion.

The various factors which are likely to influence the saving rate in an underdeveloped economy have been considered so far. The combination of all these forces provides a range of possibilities
regarding the saving rates. An underdeveloped economy making deliberate efforts for rapid economic development will have to find out the optimum rate of saving for the economy. Attempts have been made in the past to find out the optimum rate of saving for the community. The determination of the optimum rate of saving is essentially a problem of intertemporal allocation. While the theories of utility maximization or "pure" time discount may be useful in the theoretical discussion, they have, perhaps, a limited value in so far as the formulation of actual policies is concerned.

While determining the optimum rate of savings, the planning authority in an underdeveloped economy like India will have to weigh on the one hand, the maximum sacrifice that the community can bear and on the other the possibility of its productive absorption. Thus the traditionally accepted minimum standard of living and the absorptive capacity of the economy indicate the upper ceiling of the optimum rate of saving. With the given absorptive capacity our interest centres round the maximum saving that the community can set aside for further development. If the individuals are left to themselves the voluntary rate of savings may be lower than the rate which is desirable and attainable from the point of view of the community. The extent to which the state can force the rate of saving will depend upon


Tinbergen, J. "The Optimum Rate of Saving", E.J. Vol.LXVI, No.264, Dec.1956, p.605-09

The degree of social and political tolerance. The degree of tolerance will depend upon various factors like the popular urge for development, the manner in which the burden of sacrifice is distributed, the efficacy with which the acquired resources are utilised and the manner in which the fruits of progress are shared.