Chapter Six

CONCLUSION

1. Introduction :

Our intention here is to present some of the main findings that emerge from the study of the problem. In the next section the main conclusions dealing with chapter 4 (i.e. Analysis of trends in variables and simple relationship between different variables) are discussed. This is followed by the main conclusion dealing with chapter 5 (An empirical estimate of the Model). In the light of the empirical results we suggest certain policy prescriptions. Last of all is the limitation of our study.

2. Main Findings :

a) An Analysis of Trends in Variables and Simple Relationship Between Variables:

Most of the components of households' saving show a tendency to increase over time. Regarding liquid asset ratio, it has consistently increased till 1976-77, thereafter the ratios have stabilised. Amongst the illiquid asset ratio, time deposits have increased at a higher rate and therefore its share in household saving has increased followed by provident fund and

Life Insurance Fund. The series on consumer durables too has increased consistently, but the extent of variation in this series is much less than the series dealing with liquid asset and illiquid asset. The series on direct investment has maximum variation. This ratio series is fluctuating , but stagnant till 1977-78. After 1977-78, there is substantial increase and in 1980-81 it crossed the level reached in 1960-61 (which was the highest reached earlier). The series on physical asset is also rising continuously, but all its components have not increased over time. The construction ratio has consistently fallen; while the machinery and equipment ratio has increased from 1960-61 to 1969-70, but has fallen in the post 1970-71 period. Changes in the stock series have been slowly increasing till 1971-72, but from 1972-73 onwards the rate of increase has been higher. The borrowing ratio too is consistently increasing.

The house hold's absolute saving and households saving ratio series have been increasing over time, but there have been fluctuations. The absolute series indicate major increases in the post 1970-71 decade. The components that have increased at at faster rate than household savings are illiquid asset, consumer durable assets and borrowings of households, while liquid asset, direct investment asset and physical asset have increased at a slower pace.

Between 1951-52 - 1964-65 the household saving ratio series moved steadily but slowly at higher levels, then it suddenly went into two digit figures in 1965-66, after this there was gradual increase, with fluctuation being common. The series moved in the range of 10 - 15%. In 1976-77, it again jumped and the ratio stood at 19 - 20% and it remained at this level till 1980-81. From 1981-82 to 83-84 it fell and fluctuated in the range of 17 -18%, but of recent has again risen. The maximum increase in this series has taken place in the post 1970-71 period.

The average annual rate of growth in absolute series and ratio series in the post 1968-69 period in almost all the components of household savings has been lower than the average annual rate of growth in the pre 1968-69 period. This is partly due to the reason that initially the base of almost all the assets was negligible. But this does not justify fall in growth rate in these assets. For a sustained increase in growth of the economy the growth rates in these assets should not have fallen at least, as there is ample scope for these assets to increase in saving portfolio of households.

The liquid assets and illiquid assets ratio have fallen substantially in growth rates. The growth rate in consumer durables ratio has not fallen much. This indirectly implies a shift in the preference of households for consumer durables as compared to liquid asset and illiquid assets. The average annual growth rate of physical asset has not only fallen in the latter subperiod, but has been negative also. The growth rates of its

components: construction and machinery and equipment in the post 1970-71 period are higher than the growth rates during 1960's and 1950's and of the two machinery and equipment growth rates are higher. In construction the growth rates are lower than gross physical saving also, suggesting that there is likely to be a shift from construction to other components of physical assets. The changes in stock components witnessed highest growth rates in the post 1970-71 period, while for the other two components growth rate fell.

The household borrowing series show the similar trend of fall in annual average growth rate in post 1969-70 period.

The only component which is not similar to the others is direct investment. Here the average annual growth rate is very low, but it has increased in the post 1969-70 period. This suggests that these assets and particularly 'loans and advances' are increasing in importance.

The above analysis suggests that there is a shift in preferences of household towards assets such as consumer durables and direct investment and fall in illiquid asset, liquid asset, physical assets and borrowing. A fall in financial assets in an economy which is still developing is not encouraging especially, when monetisation is also not 100%, and the money markets and capital markets are not fully developed. There

is a need for some policy that will increase the household's share in financial assets, only then can household savings be used to finance the growth in the economy.

The household saving ratio and the absolute saving series show the trend that is similar to almost all the components, i.e. the average annual growth rate in the post 1969-70 period has been lower than in the pre 1969-70 period. On comparing the components' growth rate, we notice that liquid asset, illiquid asset, and consumer durables have increased at a greater rate than saving ratio growth rate in both the subperiods, while physical asset ratio has increased at a lower pace in both periods. Net borrowing ratio has increased by greater amount only in the period before 69-70, while direct investment has increased by greater rate only in the post 69-70 period. The highest increases have occurred in illiquidasset rates, while the lowest are in direct investment.

The salient features emerging from the above discussion are :

The important component ratios in the latter subperiod (1969-70 onwards) are physical asset, illiquid assets, consumer durables and liquid asset. The annual average growth rate has been highest in direct investment followed by illiquid asset, liquid asset and consumer durables in the post 69-70 period.

In the light of the above discussion we can say that:

1) In future the assets that are likely to have sizeable effect areilliquid assets and consumer durables.

2) Physical asset because of its sheer ratio is likely to be still important, but because of lower and negative growth rates in the post 1969-70 period, its importance is likely to fall.

3) Borrowing ratio because of its low share in household saving, is not likely to have much impact.

4) Liquid asset share in household's saving is fairly high and its annual growth rate is also high, although it has fallen considerably.

5) Direct investment because of its very low ratio in household saving will not have much impact inspite of having very high growth rate.

When we study over short periods how different household asset components respond to expected rate of inflation the following analysis emerge:

1) The liquid asset ratio of the household sector rises when expected rate of inflation falls and it falls when expected rate of inflation rises. On the other hand period wise analysis suggests that the responsiveness of liquid assets to expected rate of inflation in the earlier period is higher than in the latter period.

2) There are no clear effects of expected rate of inflation on illiquid asset ratio, but in the earlier period the asset ratio responds more to expected rate of inflation than in the latter period.

3) There is no clear effect of inflation on consumer durables ratio, direct investment ratio and physical asset ratio. In the case of consumer durables ratio, when expected rate of inflation increases the growth rates in this asset ratio fall. No definite conclusion can be drawn, when period wise analysis is done . In the case of direct investment when expected rate of inflation falls direct investment ratio increases. Regarding components of physical assets, we notice that the construction and residential dwellings amount falls, when expected rate of inflation falls, but there is no consistent effect of a rise in expected rate of inflation. On the other hand the component machinery and equipment are negatively related to expected rate of inflation and the component changes in stock is not consistently affected by expected rate of inflation.

4) We notice a positive effect of expected rate of inflation on borrowing before 1978-79 but later it is reversed.

5) There are no consistent effects of expected rate of inflation on household savings. The secondary effects also i.e. on the growth rates of household savings are also not consistent.

Before 1972-73 we notice that rate of growth in household savings are positively related to expected rate of inflation, while in the post 1972-73 period they are negatively related.

Similarly domestic saving ratio has been increasing over the entire period and maximum increases have taken place in the post 1970-71 period. The increases in domestic saving are less than those in household saving and therefore the share of household saving in domestic saving has increased.

Regarding the series on incremental capital output ratios there is a consistent increase in this ratio and the maximum increase has taken place in the second decade, 1960-61 to 1968-69.

Regarding the exogenous variables series, disposable income of households have increased at an annual average rate of 7.22%. Increases are higher in the post 1970-71 period. The increase in the expected rate of inflation has been consistent. It increased from 2% to 6% then to 8%, but the economy has never faced very high rate of inflation for longer periods. The market rates of interest have fluctuated more before 1960-61 and in the post 1970-71 period, while during 1961-62 - 1969-70 they were relatively stable. The real rates of interest on one year deposit have been generally negative, and low. The expected real rates of return on consumer durables before 1971-72 were negative the average return being -1.91, while in the post 1971-72 period

it was +1.05. The variability is higher in the post 1972-73 period. The expected real rates of return on direct investment were high and positive till 1959-60. Then till 1970-71 they had fallen and had become negative too. From 1970-71 onwards these returns have increased and reached a maximum of 5.5% in 1982-83. The expected real rates of return on physical assets are generally positive except for the years 1951-52 and 1974-75. The returns have moved in the range of 5 - 6% during the whole period. The expected real rate of return on gold was negative till 1957-58, then it very gradually increased till 1962-63 and from 1963-64 - 1968-69 it became negative. From 1969-70 - 1973-74 the returns were positive, but small, while after 1973-74, the returns have really soared high. The real borrowing rates were high from 1950 - 1959, but were low during 1959-60 - 1977-78. After 1978 there is a tendency to increase again.

Simple Relationship Between Various Variables:

Household saving has maximum simple correlation with saving in illiquid asset and consumer durables, followed by physical savings and borrowings. Liquid assets and direct investment have comparatively low correlation. From the type of assets that have accumulated it seems that saving in households' sector is originating primarily from the relatively well to do households both in the urban and rural areas.

On the other hand domestic saving has maximum correlation with saving in illiquid asset followed by consumer durables. In case of household saving it is the other way; this is because in domestic saving the government and corporate saving are also included and these institutions do not invest their saving in consumer durables as much as households do.

Incremental capital output ratio is hardly related to any of the assets' ratios. It has maximum simple correlation with physical asset: (these assets are held essentially by the producer segment of the household). Household sector is basically consumer sector, while incremental capital output ratio is a technical term and essentially affected by the behaviour of the producers. Therefore there is hardly any significant effect.

When we examine the simple correlation between different independent variables we notice a relatively strong correlation between disposable income, expected real return on market rate of interest and on gold. There is also a strong correlation between expected rate of inflation, real return on one year deposit and on borrowing. The latter correlation is because both the rates of interest are administered, therefore the nominal rate has moved very slowly. The real rate, given the nominal ones, is therefore dependent on the expected rate of inflation. To see if the β coefficients are affected because

of this multicolinear problem, we ran the equation without expected rate of interest on one year deposit and rate of borrowing. In almost all the equationsthe $\bar{R}^2$ improved, but none of the β coefficients changed drastically. Therefore probably we can still rely on these β' coefficients' estimate and draw our conclusion.

b) An Empirical Estimate of the Parameters of the Model :

The variables significantly affecting household savings are, expected rate of inflation, the expected market rate of interest, the expected rate of return on consumer durables and on direct investment. The first two of these are generally significant in all the asset equations, particularly in illiquid asset, consumer durable and direct investment, while the latter two are essentially affecting physical asset ratio. Any variable that significantly affects physical asset ratio is bound to affect household saving as a large share thereof is in the form of physical assets. As the expected rate of returnson consumer durables increase, not only will the saving ratio fall, but also incremental capital output ratio is bound to increase as these goods need more and more of capital and sophisticated technology.

The expected rate of inflation increases the household saving ratio and particularly assets such as illiquid asset and consumer durables, while it reduces direct investment ratio; therefore we cannot say with certainty how it affects growth.

The expected real market rate of interest affects almost all the asset ratios positively and so also the household saving.

The domestic saving ratio is significantly affected by expected rate of inflation, expected real market rate of interest, expected real rate of return on consumer durables and on gold. Except for the expected real rate of return on consumer durables, all the other variables are positively affecting this ratio.

Incremental capital output ratio is positively affected by expected rate of inflation and is significant too. Expected rate of inflation affects both the saving ratio and the incremental capital output ratio positively. As the numerical value of β coefficient (related to ρ^e) is higher in incremental capital output equation, therefore expected inflation raises incremental capital output ratio more than saving ratio. Thus inflation affects the growth rate negatively.

3. Some Policy Prescriptions :

In both the household saving equation and domestic saving equation the important variables affecting these ratios are : expected rate of inflation; expected real market rate of interest; expected real rate of return on consumer durables, direct investment and on gold.

The Indian households do respond positively to the expected real market rate of interest. This indicates that

Indian households save not only with the purpose of fulfilling their transaction and precautionary demands, but there is an element of speculative demand too, which is normal. As market rate of interest is expected to increase, household save more to earn a higher interest on it.

The government should aim at reducing the expected real rate of return on consumer durables; this is possible by keeping check on the prices of consumer durables, both via the availability of these goods and through proper tax policy. The government should follow a steady tax policy (i.e. there should not be frequent change in the tax rates and on the number of commodities covered under the taxes). Frequent changes lead to undue speculative gains in an economy which specially faces shortages of almost everything. This results in the emergence of dual markets. Though expected real rate of return on direct investment negatively affects household saving, yet the endeavour of the government should be to increase return on these assets by putting less restrictions and taxing the dividends at a lower rate. As the rates of return on these increase, the corporate sector in particular would be able to raise a lot of capital from the capital market and tap household savings which might have been converted either into gold or in speculative assets like land.

Regarding gold, the household's attitude towards this asset holding has to be changed. In this context, it may be

mentioned that the higher is the increase in the price of gold the more the craze for this asset would reduce, as less and less number of households will be able to afford it. This inability might change their outlook for good. For the relatively few households who still continue to have a large amount of this asset, these households would have otherwise used their saving in alternative assets most likely imported consumer durables. So to restrict their holding of gold, the government should put certain legal restrictions on the amount of gold that can be held by a family.

If we only consider the household saving equation, we would conclude that other variables such as expected realrate of interest on one year deposit & on borrowing, expected real rate of return on physical assets and to some extent on gold are irrelevant. Therefore these variables can be dispensed with. But the different assets equations give us a better insight into the household saving behaviour e.g. in equation One we notice that the coefficient with respect to real rate of return on one year deposit and on physical assets is positive and significant. If there is a need to increase the savings of households, particularly in liquid assets, then the policy instrument is obviously increasing expected real rate of interest on one year deposit.

On the other hand during the period when expected rate of return on physical asset is increasing (and therefore household

save more in liquid asset), under such conditions, the policy makers can inject more and more of money into the economy without its having any disastrous effect on the inflation as household's behaviour is such that they keep on increasing the amount of money in their saving portfolio rather than spendit on consumption. Thus deficit financing can be used for development purpose more effectively in the short period.

Similarly if government policy can significantly increase the price of gold, then gold would become extremely expensive for an ordinary household, therefore, they would shift from gold to other assets like illiquid asset, consumer durables etc. which have more growth generating effect. This excessive pricing of gold will debar households from purchasing this asset and so the social and psychological need for it over time will fall. Thus in the long run gold a sterile asset would be replaced by more growth promoting assets like illiquid asset, direct investment and others which will come up with financial intermediaries.

If the rates of interest on bank deposits are increased then the two components that are significantly and positively affected are liquid asset ratio and consumer durables ratio. The coefficient of liquid asset ratio is higher than that of consumer durables ratio, therefore if the government wants to incur deficit finance, to finance development expenditure then it

must at the same time keep on increasing interest rates on deposit, so that the new money which is injected into the economy, is not spent on consumer goods; but is held by the household in the liquid asset. Thus under these circumstances deficit financing may not lead to high rates of inflation, and a moderate inflation we have noticed is increasing saving ratio.

To therefore neglect the above mentioned variables just on the basis of the saving function would be wrong , as they can otherwise change the household asset demand on a long term basis. Thus we see that by analysing each asset equation separately, we have a better understanding of the household saving behaviour than we would otherwise have if we were just considering the household saving aggregate function.

In the incremental capital output function only expected rate of inflation is a significant variable and it positively affects the ratio. Thus expected rate of inflation by increasing saving ratio promotes growth, while on the otherhand by increasing incremental capital output ratio reduces growth rate. Thus whatever increases are there in saving ratio are not properly channelised to increase the efficiency of the scarce factor - capital. The empirical results suggest that there are bound to be some lags between increase in money supply and prices. Thus deficit expenditure should not be curtailed, if it promotes developmental activities, on the plea that increases in supply of money lead to increase in prices. For even

if prices do rise, they have a positive effect on the saving ratio, and if government is dedicated towards increasing the growth rate if can arrest increases in incremental capital output ratio. The-oretically inflation stemming from increase in expenditure by government on development activities should be tolerated, because by incurring such expenditure we would be removing certain structural rigidities which in the long run would reduce incremental capital output ratio. But our practical experience suggests that even a moderate rate of inflation which is accompanied by many controls and restrictions imposed by government on adhoc basis has generated black money which has seriously affected composition of saving and incremental capital output ratio such that growth in the short run is negatively affected. This is also substantiated by the fact that all the components of saving and household saving series in the post 1969-70 period had lower growth rates because hoarding in precious metals and stones, investment in real estate etc. gained predominance because of black money. Therefore inflation by generating black money and inducing speculative activity has diverted, income not spent (savings) to hoarding which is not included in saving concept.

In India inflation has certain undesirable effects such as increasing black money operation, curr-uption, inefficiency and inequalities of income. As a result the whole social

fabric of the country is becoming worse. Further it does not even positively affect growth rate, therefore any tendency to increase the rate of inflation as a tool to increase the growth rate should be avoided. Thus inflation as witnessed in the past is not desired at all.

4. Limitation of our Study :

The household sector is really the residual sector which consists of both the pure consuming households and those that are self employed. Both these types of households have different motives to save. As our study is directed towards those households, who are supplying funds to the deficit sector, therefore in our analysis of various functions we should have considered only the consumer segment of the household sector. Due to lack of data available in this form, we had to carry on with the usual household definition. But it would be worth while to carryout the exercise after making some adjustment for the non consuming households. In that event probably the empirical results would be more meaning ful and accordingly the policy can be framed which induces generation of higher and higher saving ratio, along with efficient use of it so that higher growth rates are possible.

Similarly data is not available on saving of household in the form of gold. Also authentic estimates of Black money are not available and so we could not include it as an explanatory variable.