A massive planned development process requires high level of investment in crucial and carefully selected fields of economy. Planners and economists have assigned savings a fundamental role in the whole process of economic development since financial resources essential for investment, have to come primarily through savings. It is only sustained and high doses of judicious investment in economic and social activities that bring about a significant increase in the national income and with it, the per capita income ensuring the maintenance and improvement in the standard of living and a desirable life style for the people. Development rests on investments and investments come through savings. However, in our country it appears that the savings available for financing investment expenditures during the various plan periods at the pre-plan year rates of taxes, tariffs and administered prices of public sector enterprises after meeting current outlay always fall short of the required investment for arriving at the targetted growth rates of various plans. Consequently, there emerges a gap between savings as stated above and the required investment which is bridged by additional resource mobilisation, external assistance and deficit financing. Although the assumption of price-stability during various plan periods is considered yet inflationary financing with its resulting sharp rise in prices and cost of living is becoming a serious problem. The aforesaid saving-investment gap-filling instruments are having different impacts on inflation and growth in the context of planning in our country. In our present work we have studied some of the implications of saving-investment gap on
the rates of inflation and growth on our economy. We have also studied some related problems concerning inflation and growth and public sector plan outlay. The findings of the foregoing chapters are summarised below.

In the introductory chapter we outlined in detail the objectives of the study, rationale of the study, scope of the study, sources of information, methodology used, as well as the limitation of the study. We have made a review of empirical studies concerning "two-gap" approach to development made by different economists at different times. The central idea of "two-gap models" approach to development is due to Hollis Chenery and some of his collaborators. Suggestions for a strategy of more rapid development utilizing substantial amounts of external assistance have been set out in "two-gap models" approach to development. The basic argument of this model is that the developing countries are either faced with a shortage of domestic savings to match investment opportunities resulting in S-I gap and a shortage of foreign exchange to finance imports of capital and intermediate goods required for setting up industries over and above net export earnings resulting in Export-Import gap. However, as noted by us, the developing countries suffer from both the gaps simultaneously and there are other equally important gaps in the technical field and the economic infrastructure of these countries. By helping developing countries in filling up all these gaps, foreign aid can contribute significantly to their growth process.

The various studies made under the "two-gap model" to development suggest that the rate of growth of a developing economy can be made to increase substantially through financing
additional investment as well as through providing additional imports required to sustain a higher level of income with the help of a moderate volume of external resources. The key elements in this process are the response of the country to the availability of additional resources and its ability to replace the resources over time by changes in the structure of its production and its use of income. The possibilities of securing rapid and sustained development by effective use of foreign assistance had been strikingly demonstrated by countries like Greece, Israel, Taiwan and the Philippines in the early sixties. In each case, a substantial increase in investment financed largely by foreign loans and grants has led to rapid growth of GNP followed by a steady decline in the dependence of external financing. Not only was growth accelerated by foreign assistance but the ability of each economy to sustain further development from its own resources was very substantially increased.

A transfer of external resources enables the recipient country to raise the level of investment and to increase the supply of commodities that are domestically produced. The first requirement of development policy under these circumstances is to allocate a sufficient portion of the import surplus to increased investment and to the import of commodities needed to prevent bottlenecks in production. Once a growth process is established, changes in the economic structure in the direction of increased savings, import substitution, and increased exports are required in order to reduce the dependence on external resources.

The two-gap analysis is, however, based on certain restrictive assumptions which limit the usefulness in achieving
the target growth rate in developing countries. It pre-supposes that an increase in domestic savings cannot be utilised as a substitute for the required foreign exchange to maintain investment for the target growth rate. It further assumes that the country cannot follow export promotion and import substitution policies. It also assumes structural rigidities and non-subsitutability between different types of goods. Given such rigidities, if the foreign exchange gap is larger than the savings gap, the domestic saving potential can be used neither to produce capital goods nor exports. These assumptions are highly unrealistic and have not been supported by empirical evidence. Moreover, the two-gap analysis is a highly aggregative approach which treats all types of capital investments as homogeneous. This is unrealistic because the capital requirement of developing countries are meant for specific needs and they receive foreign aid project and sectorwise.

In chapter II theoretical implications of S-I gap in macroeconomic framework have been discussed at length. Throughout the whole literature of saving and investment in macroeconomics it is observed that there are two views on saving and investment, viz: (i) saving and investment are not necessarily always equal resulting in a saving-investment gap and (ii) saving and investment are always equal. However, these apparently opposite views may be reconciled as the equality or divergence between saving and investment can be attributed to the different definitions given to these terms.

Keynes defines saving and investment in his *Treatise* as

\[ S_t = Y_t - c_t \quad \ldots \ldots (1) \]

and

\[ I_t = Y_t - c_t \quad \ldots \ldots (2) \]
Where \( Y \) is normal income (which includes the normal remuneration or normal profit that the entrepreneurs should get for discharging their functions in production), \( c \) is current consumption, \( S \) is current savings and \( I \) is investment, \( Y \) is actual income which is the sum of normal income \( Y^0 \) and the difference between the actual remuneration of the entrepreneurs and their normal remunerations termed as profits which may be positive or negative. From (1) and (2) we find that there is a gap between saving and investment being equal to total profits \( Q \) of the entrepreneurs, that is,

\[
Q = I - S \quad ............. (3)
\]

It follows that investment exceeds saving by the amount of the excess of the actual profit over normal profit and conversely saving exceeds investment by the amount of the deficit of actual profit from the normal profit. Keynes demonstrates in his Treatise with two equations known as 'fundamental equations' how the gap between saving and investment may be one of the causes of disturbance in price level. His first fundamental equation deals with the forces governing the price-level of consumption goods and his second fundamental equation deals with the forces governing the price-level of output as a whole.

According to Keynes' definitions of saving and investment, as given in his General Theory of Employment, Interest and Money, saving and investment are necessarily equal. That is, 'saving' and 'investment' are so defined that saving equals investment as stated below:
Income = Value of output = Consumption + Investment.
or, Investment = Income - Consumption
Saving = Income - Consumption
Therefore, Saving = Investment.
Symbolically,
\[ Y = O = C + I \]
\[ I = Y - C \]
\[ S = Y - C \]
\[ S = I \]  \( \quad (4) \)

We observe that Keynes' adoption of different definitions of saving in his Treatise and in his General Theory was guided essentially by the empirical considerations. In his Treatise Keynes wanted to explain the fluctuations in prices and he attributed price variations to the inequalities between saving and investment. But in the General Theory he wanted to explain the changes in real income and output. For this purpose he wanted to eliminate the fluctuations in prices.

The saving - investment equation as established by Keynes in his General Theory is an accounting identity at all levels of income. It does not explain how the equality of saving and investment is brought about. That is, it reveals no causal relations. As such it becomes a tool of static analysis. The functional equality of saving and investment is, however, the final result of a process of adjustment between the saving and investment variables in relation to the income variable. We have observed that the adjustment process in the Keynesian system can be formulated in terms of a dynamic model in which saving depends upon the level of income; the rate of change of income depends
upon the difference between saving and investment such that income rises when investment exceeds savings, and income falls when savings exceed investment. In equilibrium income has a zero rate of change; it is neither rising nor falling. When the gap between savings and investment is completely wiped out then equilibrium is attained. Thus the Keynesian saving-investment equation in his General Theory can be viewed as the equilibrium solution of a dynamic system.

L.R. Klein viewed the saving-investment relationship by considering saving and investment in schedule and observable senses. In his exposition savings and investment as observables are always equal, being the point of intersection of the schedules of saving and investment. The virtual levels of savings and investment corresponding to levels of national income other than that level which actually takes place may not be equal. Klein asserts that Keynes talked about saving and investment as observables when he defines saving to be equal to investment.

Although saving and investment have been defined differently by different economists, the definitions given by Keynes and Robertson have been generally accepted but not without a controversy as to their relative merits.

Robertson defines savings as the difference between the income of the immediately preceding period and the expenditure made on current consumption. But Keynes' saving is income minus consumption of the same period. This shows that Robertson's saving will be less than Keynes' in so far as the income of the previous year is less than the income of the current year.
Robertson defines investment in the same way as Keynes defines, that is, investment of a particular period is the difference between the income and consumption of the same period. In Robertsonian formulation, saving and investment are not necessarily equal in the same period, forces tend to bring them into equality.

A distinction between planned, intended or ex-ante and realised, actual or ex-post saving and investment was made by the Swedish economists like Bertil Ohlin, Gunnar Myrdhal and Eric Lindhal. Ex-ante saving and investment may not be equal. If they are equal, that will be an equilibrium situation. Again, we have observed that because of 'consumption lag' ex-ante saving may not be equal to ex-post saving and because of 'output lag' ex-ante investment and ex-post investment may not be equal. However, saving and investment are always equal ex-post. This is because plans are recast in the light of actual developments and each adjusts until, at any point of time, a balance sheet shows that realised or ex-post saving and investment are equal in amount. We have thus, observed that because of lags

\[ S \neq S^*; \text{ and } I \neq I^* \]

Where \( S \) and \( I \) imply ex-ante saving and investment

and \( S^* \) and \( I^* \) imply ex-post saving and investment.

In the absence of lags

\[ S = S^*; \text{ and } I = I^* \]
Since saving and investment are equal ex-post, therefore, we have,

\[ S = I = I^* = S^* \]

Saving and investment play a critical role in causing economic fluctuations. If the equality between saving and investment is disturbed, the price level will also be disturbed. If saving of the community exceeds investment then the income of the community will fall resulting in deflation of prices. This will make investment less attractive and as a result investment will fall. This will lead to fall in income and employment and further fall in prices. If on the contrary, investment exceeds saving then it will lead to more income generation resulting in increased expenditure on consumption which will increase the level of prices. Thus, it has been observed that the relation between saving and investment lies close to the heart of the matter of economic fluctuations. If the equality between the two is disturbed then it will disturb the price level too.

We have also observed in chapter II that major growth models are fundamentally dependent upon the equality or inequality between saving and investment. A self-sustaining equilibrium model is based upon the equality between saving and investment. Any divergence between the two will initiate, through the multiplier process, the expansionary or contractionary movements in the economy.

Chapter III is devoted to a discussion on the planning experience over the period under our study. The interrelationship between general price level and sectional prices
and the interrelationship between inflation and growth are being studied with the empirical data. We are of the opinion that Indian Planning has brought about major structural changes in the economy, although not to the extent as desired by the planners. Today, the Indian economy has overcome some of the structural deficiencies which worried the early planners. Over the planning era a stagnant and dependent economy has been modernized and made more self-reliant. The country has become almost self-sufficient in consumer goods and in basic commodities like steel and cement, while the capacity of other industries like fertilizers, is rapidly expanding. Moderate rate of growth of per capita income has been maintained despite the growth of population. But in regards to employment, the development plans in India has failed to absorb even the normal increase in the labour force during each plan period, not to speak of alleviating backlog unemployment. It appears that no serious effort has been made on the problem of unemployment and enormous increase in population in the country. Moreover, it is a sad commentary on our planning that even after four decades of planned development, about 40 per cent of the total population still live below the poverty line.

We are at one with the critics of Indian development planning exercise that Indian plans are fairly good on paper but are rarely good on implementation. Although the plans may be both feasible and consistent yet because of a large number of actors involved without proper coordination among their activities, the plan objectives cannot be met as desired by the planners.
In this chapter we have studied in greater details the two main aspects of our study, viz; inflation and growth. We have estimated the rates of inflation and growth pertaining to various periods of our study with the help of the exponential function of the form:

\[ Y = AB^t \]

Where \( Y \) = price index (or GNP) of the terminal year of the period under consideration, \( A \) = price index (or GNP) of the initial year of the period under consideration, \( B = 1+i \), \( i \) being the rate of increase per unit, \( t \) = No. of years between the initial year and the terminal year of the period under consideration. The annual compound rate (\( \pi \)) of inflation (or GNP) = (\( B - 1 \)) X 100.

We have found that the compound annual growth rates of inflation as measured by WPI (CPI) had been - 3.0%(1.0%), 6.2%(5.2%), 5.7%(6.4%), 7.9%(7.8%), 8.9%(7.5%), 5.9%(5.8%), 17.1%(8.8%), 9.2%(10.1%) and 7.0%(7.9%) during the First Plan, Second Plan, Third Plan, Annual Plans (1966-69), Fourth Plan, Fifth Plan, Annual Plan (1979-80), Sixth Plan and Seventh Plan respectively. Again the compound annual growth rates of WPI(CPI) had been 1.4%(2.1%), 6.1%(6.2%), 9.9%(8.0%) and 7.0%(8.7%) during
the decades 1951-52 to 1960-61, 1961-62 to 1970-71, 1971-72 to 1980-81 and 1981-82 to 1989-90. The annual compound growth rate of WPI(CPI) for the entire period under study i.e. from 1951-52 to 1989-90 had been 6.1%(6.2%). We have also estimated the annual compound rates of increase in wholesale price indices of major commodity groups. The rates had been 6.1%, 5.7%, 5.8%, 6.9% and 5.8% respectively for all commodities, primary articles, food articles, fuel group and manufactured articles during 1951-52 to 1989-90. G.S. Dorrance (1963) has classified countries with 5 per cent inflation per annum as stable, between 5 to 10 per cent per annum as mild and above 10 per cent per annum as strong inflation. On the basis of the classification made by Dorrance we find that India falls within the mild inflation countries having inflation rates between 5 and 10 per cent both in terms of CPI and WPI.

We have conducted an empirical work in order to study the interrelationship between general price level and sectional prices. In order to study the interrelationship between general price level ($P_1$) and prices of food articles ($P_2$), fuel group ($P_3$) and manufactured products ($P_4$) we have regressed $P_1$ on $P_2$, $P_3$ and $P_4$ respectively. For this purpose we have taken into consideration the index numbers of wholesale prices in India over the years 1951-52 to 1989-90 with 1970-71 as the base year. We have found from the regression results that the values of $R^2$ (coefficient of determination) is almost perfect in case of each commodity group. The impact of sectional prices on the general price level in terms of regression coefficients is most pronounced in case of food articles followed by manufactured products and fuel group. The correspondence between the general price-level
and sectional price is most in case of manufactured products followed by food articles and fuel group.

Average annual compound growth rate (AACGR) of both GDP and GDP have been computed by using the same exponential function used for determining the AACGR of WPI and CPI. Although India's secular trend growth rate of GDP at 1980-81 prices hovered around 3.5 per cent till the early 1980's yet due to satisfactory growth during the Sixth and the Seventh Plan periods, the AACGR of both GDP and GDP during the period 1951-52 to 1989-90 stood at 4 per cent. During 1951-52 to 1960-61, AACGR of GNP (GDP) was 3.8%(3.9%), the corresponding figures in the sixties, seventies and eighties being 3.4%(3.7%), 3.2%(3.1%) and 5.4%(5.6%).

Our empirical work concerning interrelationship between inflation and growth yield the following informations:

The rank correlation coefficient between the growth rates of GNP and wholesale price index is positive both in case of Spearman's and Kendall's rank correlation coefficients. However, in both the cases the correlation is very weak. Again, statistical inference indicates, as from figures of t and z statistics, that while Spearman's rank correlation coefficient is not statistically different from zero the Kendall's rank correlation coefficient is significantly different from zero.

Chapter IV analyses the financing pattern of India's five-Year Plans in the context of public sector. Some of the observations made on the financing pattern of public sector plan outlay are as follows:
(i) For most of the plans the internal financing had been close to 90 per cent. It was so in case of the First Plan (90.4%), the Fourth Plan (87.1%), the Fifth Plan (87.2%), the Sixth Plan (92.3%) and the Seventh Plan (90.9%). However, in the Second and the Third Plans internal financing constituted 77.5 per cent and 71.8 of the total financial plan outlay respectively. In the Three Annual Plans (1966-69) the volume of internal financing stood at 63.6 per cent of the total financial resources for the plan.

(ii) The trend in respect of "current revenue balance" (i.e; revenue surpluses on the basis of the existing tax rates) is very unhappy with negative balance in the Third, Fourth and Seventh Plans.

(iii) 'Deficit financing' being an unwelcome feature of the pattern of financing had exceeded the planned targets in almost all the plans.

On the basis of statistical analysis of various sources of plan finance performed with the help of 'Rank correlation Matrix' and 'Analysis of Variance' (ANOVA) we have obtained the following results:

Barring the Fifth Plan, in all the plans subsequent to the First Plan the pattern of financing in respect of the magnitude of the financial resources coming from various sources changed from that in the First Plan more or less in the reverse order. The ranking positions of the financial resources remained
more or less same in the Second and Third Plans and also in the Fourth and Sixth Plans. Tests of significance of rank correlations reveal that while rank correlations between \( P_1 \) and \( P_1' \), \( P_2 \) and \( P_2' \), \( P_3 \) and \( P_3' \), \( P_4 \) and \( P_4' \), and \( P_5 \) and \( P_5' \) are statistically different from zero, none of the other coefficients is significantly different from zero where the symbols \( P_1, P_2, P_3, \ldots, P_7 \) imply respectively the variables corresponding to the ranking numbers of the public sector financial resources in the First Five-Year Plan to the Seventh Five-Year Plan.

Analysis of Variance (ANOVA) results depict that the plans have exhibited significant change both in respect of sources of finance and aggregate resources in real terms.

On the basis of our calculation of real per capita public sector plan outlay during various five-year plans we observed that excepting the Fourth Plan, the per capita real public sector outlay is increasing in each plan over the previous plan. The percentage increase is maximum at 97.5 per cent during the Second Plan followed by 61.2 per cent during the Fifth Plan.

In chapter V the implications of financing investment expenditures with the three S-I gap-filling instruments, viz., additional resource mobilisation, external assistance and deficit financing are studied empirically with the help of regression models. The empirical results are as follows:

Taking the entire period of our study i.e. from 1951-52 to 1989-90 and taking 1980-81 prices, each of additional resource mobilisation (ARM), external assistance (EA) and deficit financing (DF) is found to have positive impact on inflation and they
jointly account for 92 per cent of the total variations in inflation. The coefficient of the variable corresponding to DF is highly significant while the coefficient of the variable corresponding to ARM is significant at 5 per cent level and the coefficient of the variable corresponding to EA is not significant. The impact of additional indirect taxes (AIT) which is the major component of ARM is positive and significant at 5 per cent level while the impact of additional direct taxes (ADT) which is another component of ARM is having negative and insignificant impact on inflation. Hence the positive and significant impact of ARM on inflation might be solely due to additional indirect taxes. Our empirical findings support the theoretical reasoning that indirect taxes usually add to price rise whereas direct taxes has the negative impact on prices. Also we find that the simple regression coefficients of the variables corresponding to ARM, EA and DF on inflation are in conformity with their partial regression coefficients. We also observe from the simple regression coefficients that ARM, EA and DF are having positive impact on inflation. Again as in multiple regression results, while the impact of DF on inflation is highly significant, that of ARM is significant at 5 per cent level. The impact of EA on inflation is insignificant. Again, individually ARM explains 48 per cent of total variations in inflation, EA explains 28 per cent and DF explains 85 per cent of total variations in inflation.

The estimated parameters of the multiple regression model pertaining to the period 1980-81 to 1989-90 and at 1980-81 prices reveal that each of the explanatory variables ARM, EA and DF is having positive impact on inflation. These variables together explain 78 per cent of the total variations in inflation. While the impact of each of them on inflation is positive, the
impact of EA as well as DF is significant at 5% level and the impact of ARM is not significant. Again, the impact of the major component of ARM, which is additional indirect taxes (AIT), is positive and significant at 5 per cent level while the impact of the other component of ARM which is additional direct taxes (ADT) is although positive yet it is insignificant. Thus we find a shift from negative impact of ADT on inflation in case of the entire period of study to its positive impact on inflation in case of the period from 1980-81 to 1989-90 although the impact is insignificant in both the cases.

The individual impact of each of EA and DF on inflation is positive and highly significant but the impact of ARM on inflation is negative and insignificant. Individually, EA and DF explain respectively 74 per cent and 61 per cent of the total variations in inflation while ARM explains only 0.4 per cent of the total variations in inflation. We find that both the multiple and simple regression models yield similar informations. From both kind of models EA and DF are found to have positive and significant bearing upon inflation while ARM is having no significant impact. However, the impact of additional indirect taxes (AIT), the major component of ARM is found to have positive significant impact on inflation.

The following are the observations made in respect of the entire period under study (1951-52 to 1989-90) based on planwise annual average data and in respect of the eighties (1980-81 to 1989-90) based on yearly data:
1. In case of the entire period under study, ARM, EA and DF together explain 92 per cent of the total variations in inflation. In case of 1980's, ARM, EA and DF together explain about 78 per cent of total variations in inflation. This shows that other factors besides the ones incorporated in the models are having more influence on inflation during the eighties in comparison to the entire planning period.

2. When we consider the entire period of our study, we find that ARM and DF are having positive significant bearing upon inflation while the impact of EA on inflation is although positive yet it is not significant. Also we observe that the impact of ADT on inflation is negative and insignificant and that AIT which is the major component of ARM is positive and significant. Coming to the eighties we find that while EA and DF are having positive significant bearing upon inflation, ARM does not significantly affect inflation. However, AIT, a major component of ARM is found to have positive significant impact on inflation while the influence of ADT, another component of ARM, is having no significant impact on inflation.

We have observed from the regression results that deficit financing (DF) is always vital in accelerating inflation. ARM as a whole and AIT in particular are having positive significant impact on inflation so far as the entire period of study is concerned. Although the effect of ARM as a whole became insignificant during the eighties, yet its major component i.e.; AIT is found to have positive and significant impact on inflation. Again, considering the entire period under study, EA is found to have insignificant impact on inflation while its impact on inflation during the eighties became positive and significant.
This may be due to the reason that while in case of both the periods, WPI series is a strictly increasing one, the planwise annual average inflow of EA during the period 1951-52 to 1989-90 is more erratic in nature in comparison with the annual inflow of EA during the eighties.

Obviously, the regression results corresponding to the entire period under study would have differed a little had the regression models been fitted with yearwise data of ARM, EA and DF for the period 1951-52 to 1989-90. However, we could not fit our regression models with yearwise data due to non-availability of such data during the entire period of study.

In chapter VI also multiple regression models are used to find the implications of S-I gap filling instruments, viz., ARM, EA and DF on growth of GNP. The estimated multiple as well as simple regression results based on 1980-81 prices yield the following informations:

So far the entire period under study is concerned, ARM, EA and DF together account for 91 per cent of the total variations in GNP and the impact of each of them on growth of GNP is positive. The partial regression coefficients of the variables corresponding to ARM and DF are significant at 5% level while the partial regression coefficient of the variable corresponding to EA is not significant. These observations have also been supported by the corresponding estimated simple linear regression equations. From the estimated simple linear regression models we find that ARM accounts for 49 per cent, EA accounts for 40 per cent and DF accounts for 81 per cent of total
variations in GNP. When additional direct taxes (ADT) and additional indirect taxes (AIT) are incorporated in a multiple regression model in lieu of ARM, then we find that the impact of AIT on growth of GNP is positive and significant and the impact of ADT on growth is though positive yet it is not significant.

The estimated multiple as well as simple linear regression models based on yearly data at 1980-81 prices for the period 1980-81 to 1989-90 yield the following informations:

The three explanatory variables ARM, EA and DF in unison account for 93 per cent of the total variations in GNP and the impact of each of them on the growth of GNP is positive. Again all the partial regression coefficients of the variables corresponding to ARM, EA and DF are significant at 5 per cent level. The simple linear regression results also support these observations. Again ARM, EA and DF individually account for 51 per cent, 76 per cent and 65 per cent of the total variations in GNP respectively. When ADT and AIT are incorporated in our multiple regression model in lieu of ARM, then we find that the impact of AIT on growth of GNP is positive and significant and that of ADT is although positive yet it is insignificant. The important observations made in respect of the entire period under study and the period from 1980-81 to 1989-90 are as follows:

ARM and DF are having positive significant bearing upon the growth of GNP whether we consider the entire period of our study or the period from 1980-81 to 1989-90. However, on the basis of the entire period of our study we find that although the influence of EA on growth of GNP is positive yet it is not significant while its impact on growth is found to be positive and significant on the basis of the data pertaining to the eighties.
In chapter VII, we have studied with the help of input-output model the effect of S-I gap on sectoral as well as aggregate output and income under various conditions of S-I gap filling. For this purpose we have aggregated the national 50-sector input-output flow table of 1984-85 into 10 broad sectors. The average annual S-I gap for the period 1980-81 to 1989-90 covering the Sixth and the Seventh Five Year Plans has been assumed to be the S-I gap for the year 1984-85. This gap stands at 28.8 per cent of investment for the year. It has been found that if the S-I gap remains completely uncovered then both of aggregate national output and income will fall by 6.85 per cent over the aggregate national output and income when the gap is bridged by the three instruments of S-I gap filling viz., additional resource mobilisation, external assistance and deficit financing. When 50 percent of the S-I gap is filled up then the fall in national income and output is half of 6.85 per cent i.e; 3.43 per cent. In case of sectoral output and income we find that when the gap remains completely uncovered the construction sector is affected most, the percentage decrease being 24.34 followed by mining, forestry, manufacturing, electricity, other services, transport and communication, fishing, agriculture and animal husbandry. The percentage decrease in income and output of these sectors being 12.93, 10.13, 8.57, 5.37, 3.84, 3.43, 2.27, 1.92 and 1.39 respectively over the incomes and outputs of these sectors when the S-I gap is completely filled up by the three gap-filling instruments. When 50 per cent of the S-I gap is filled up then obviously the percentage decrease in income and output of the sectors would be half of the corresponding figures of the decrease in income and output when the gap remains completely uncovered. Of course, this is based on a very simplified
assumption that investment is uniformly slashed down in all the sectors when the S-I gap remains completely uncovered or only 50 per cent of the gap is covered.

**Conclusion and Suggestions:**

The conclusions which emerge as a result of the present study are as follows:

Our empirical work shows that the impact of deficit financing (DF) on inflation is highly significant. Again on the basis of the statistical evidence it is difficult to come to a definite judgement that inflation really helps growth in view of the very weak positive correlation that exists between economic growth and rise in price level. Therefore, it would be inappropriate to rely excessively on the inflationary mode of finance through deficit financing beyond a 'safe' limit for economic growth. Inflationary finance can be resorted to in the early stages of economic development in so far as it can generate new productive resources in the economy. But a continuous reliance on it would do more harm than good to the economy as it also brings about inequitable distribution of a country's national income. Our empirical findings reveal that while the impact of DF on growth is positive and significant at 5% per cent level, its positive impact on inflation is highly significant. Hence deficit financing should be very judiciously resorted to so that its growth impact does not get completely neutralised by its inflationary impact.

Three points of view may be adopted in assessing deficit financing as an instrument of economic growth:
1. As a method which makes available the surplus resources which exist in the economy but cannot be mobilised due to scarcity of financial resources,

2. As a method of resource mobilisation through forced savings, and

3. As a method which can increase the supply of resources in a growing economy.

If there exists surplus and unutilised resources in an economy, they can be mobilised for increasing the volume of output by creating financial resources through deficit financing. Keynes advocated deficit financing on this line of reasoning. Idle productive capacity, however, does not usually exist in the developing countries, and though a large volume of surplus labour does exist there, it suffers from scarcity of capital and complementary resources. Thus the Keynesian theory of deficit financing is not so much helpful in the mobilisation of surplus resources in a developing economy like ours. It may be mentioned that Sanjay Agarwal (1991) found in his study that the deficit financing incurred by the Government of India brings about the increase in money stock against an increase in real output of less than 5 per cent.

We have found in our study that additional indirect taxes which is the major source of additional resource mobilisation has positive and significant impact on both inflation and growth whereas the impact of additional direct taxes which is another component of additional resource mobilisation is having negative impact on price level and positive impact on growth. The
conclusion that emerges out from our empirical findings is that in order to reduce the inflationary impact of additional resource mobilisation the Government of India should mobilise resources by expanding the horizontal as well as the vertical base of direct taxes and the dependence on additional indirect taxes should be reduced gradually.

In regards to the use of external assistance we find that its impact on both inflation and growth is insignificant although it is positive when we consider the entire period of our study i.e., from 1950-51 to 1989-90. On the contrary, its impact on both inflation and growth is found to be positive and significant when we consider the period from 1980-81 to 1989-90 which implies that in the eighties also the growth impact of external assistance is largely affected by its inflationary impact. Moreover, self reliance is given high priority in the context of Indian planning. Considering this basic objective of planning and also considering the unfavourable growth impact of external assistance in view of its inflationary impact, the reliance by the government on this instrument of financing investment expenditures should be continuously reduced.

We have concluded on the basis of our empirical findings that (a) the government should not rely excessively on deficit financing for financing investment expenditures, (b) the government should reduce its dependence on foreign assistance and, (c) the government should mobilise resources by expanding the horizontal and vertical tax base of direct tax system. On the basis of our above conclusion and keeping in view the inflationary and growth aspects we put forward a few suggestions below:
(a) In our country, like other developing countries, tax evasion is widely practised. The government should revitalise the tax collecting machinery so that tax evasion is stopped which would make a considerable addition to the receipts under direct taxation.

(b) Due to political and administrative reasons agricultural sector has been paying much lower share of total taxes as compared to non-agricultural sector. The rich farmers who are the main beneficiaries of the Green Revolution should pay higher taxes. A more practical way of resource mobilisation for the government should be to: (i) cut down subsidies on fertilizers, power, irrigation etc., which form agricultural inputs of rich farmers; and (ii) increase indirect taxes on these and other products like tractors, diesel and electric pumps etc. purchased by rich farmers, (iii) increase the rates of agricultural income tax and land revenue progressively.

(c) Every effort shall have to be made for bringing out reductions of all non-essential or non-functional and non-productive expenditure in the public as well as the private sector and the financial resources thus saved should be utilised in financing productive expenditures.

(d) In order to meet the demands for consumption and production at reasonable stable prices, increase in investment must produce increase in income and it must be matched by an increase in output. For this, the quick yielding projects of production shall have to be emphasized, and the gestation lags must be reduced to the minimum. Efficiency in production shall have to be promoted both in the private and the public sector for improvement in productivity through proper coordination of activities among the various actors involved.
(e) The centre should try to maintain a non-inflationary macroeconomic environment, more efficient use of existing capital and labour resources.

One should not ignore the fact that implications of S-I gap on inflation and growth not only depends on how the S-I gap is filled up through various instruments, but also depends on the nature of investment. Since we did not have appropriate data and information about the investment destination of the resources mobilised through additional resource mobilisation, deficit financing and external assistance as S-I gap filling instruments, we could not analyse the impact of the said instruments on inflation and growth with respect to investment destination. This is a limitation of our study. This aspect of the study is left for future research.

It is also possible to find out an optimal pattern of financing plan investment which is consistent with a certain inflation rate. For analysing this problem, a core input-output matrix may be constructed with sectoral disaggregation on the basis of the published input-output data from CSO and the Sixth Plan Document. This core input-output matrix will be the framework of the model which can be converted into an optimization procedure by programming technique. This is also left for future research.