Chapter VII

SUMMARY AND CONCLUSIONS

The review of the theories of inflation and the empirical studies on Indian inflation made in the first chapter has clearly brought out the fact that the existing studies seeking to explain price behaviour are inadequate and suffer from many limitations. There is very little agreement among economists and policy makers on the relative importance of different economic forces in shaping the course of prices in India. In India price behaviour has generally been analysed in a simple quantity theory framework. However, there are studies devoting some attention to structuralist factors. But the overwhelming evidence seems to be in favour of the monetarist variables. The poor performance of monetarist model applied to annual data, inadequate attention paid to time lags with which explanatory variables influence the price level, total neglect of institutional and crucial structural factors, emphasize the need for trying alternative formulations to make-up the deficiencies in the model. Instead of stopping with surface level analysis focussing on monetary and fiscal factors, it is argued that we should identify institutional factors and structural changes that have an impact on price behaviour in such economies.
Nature of inflation during seventies has been quite different compared to the earlier period. Prices of many commodities responsible for inflation during sixties did not register substantial increase during seventies and their place has been taken by other commodities. Prices of fuel, power, light and lubricants rose at a rapid rate before 1970-71 and after that their place has been taken by minerals. Before the year 1970-71 there had been higher increase in the prices of agricultural commodities compared to that of manufactured goods but after the year 1970-71 and especially from the year 1975-76 it has been other way round.

The rate of inflation has also been higher during seventies compared to the earlier period. In this regard it will be useful to mention that the year 1974-75 is the year in which the rate of inflation has been the maximum i.e. 25.2 per cent, since the starting of planning.

During the period 1970-71 to 1987-88 the wholesale price index, consumer price index and index of national income deflator increased by 405.1, 409.24 and 394.54 percent respectively. So the increase in the consumer price index is highest among the three price indices but the difference had not been much. The average annual increase in the wholesale price index during the period 1970-71 to 1980-81 was 10.2 per cent and that of in the consumer price index as well as in the index of national income deflator
was 9.2 and 8.5 per cent respectively. However, the situation changed during the period 1980-81 to 1987-88, when both the consumer price index as well as national income deflator registered higher average annual increase compared to that of wholesale price index. But for the period 1970-71 to 1987-88 as a whole there has not been much difference in the rate of inflation measured by either of the three price indices. However, it does not mean that the three series are very much same, in fact if one go by the annual percentage change, there are a lot of differences in the three series.

Regression results reveal that the consumer price index registered highest annual compound growth rate (8.9 per cent) among the three price indices used for measuring the rate of inflation. But the other two price indices namely the wholesale price index and the index of national income deflator did not lag behind as they have registered an annual compound growth rate of 8.6 and 8.8 per cent respectively. So the difference in the rate of inflation measured from these three price indices is not very significant.

One important feature of inflation during seventies has been, a rapid increase in the prices of manufactured products, minerals and fuel, power, light and lubricants. Though the price index of primary articles registered an annual compound growth rate of 8.3 per cent which is higher than the 8.1 per cent annual compound growth rate of the price
index of manufactured products, the increase has mainly been because of minerals, price index of which grew at an annual compound growth rate of 14.6 per cent. Price index of food-grains increased at an annual compound growth rate of 6.9 per cent, which is lower than the annual compound growth rate of food articles and non-food articles price indices.

Average contribution of the prices of manufactured products to the changes in the general price index is more compared to that of the prices of primary articles and fuel, power, light and lubricants over the period 1970-71 to 1987-88. But it does not mean that the average contribution of the prices of primary articles is insignificant. In fact prices of primary articles have substantial contribution, though it is lower than that of manufactured products. The prices of fuel, power, light and lubricants has increased quite sharply over the period under study. But because of the lower weight, its average contribution to the changes in the general price index is very small. However, the contribution of the prices of the fuel, power, light and lubricants has fluctuated more compared to that of the manufactured products and primary articles.

Rise in the prices of primary articles is mainly because of the agricultural commodities but the fluctuations in the primary articles seem to be largely because of the prices of minerals.
Though the average contribution of the non-food articles to the changes in the prices of agricultural commodities is lower than that of food-articles, its contribution is more stable. In the food articles price changes the average contribution of foodgrains prices is higher than that of non food grains prices for the period 1970-71 to 1977-78; But for the period 1977-78 to 1987-88 it is other way round. However, for the period 1970-71 to 1987-88 as whole the contribution of the prices of foodgrains to the changes in the prices of food articles is larger as well as more stable compare to than that of the non-foodgrains. Inspite of the fact that weight of pulses is so small as 2.18 per cent compared to 19.74 per cent that of cereals, the average contribution of the prices of pulses to the changes in the foodgrains prices is 30.56 per cent.

The prevailing institutional factors and structural changes in Indian economy have been analysed under two heads domestic and international. Among the domestic factors that have contributed to the price rise in India are the basic plan strategy, ineffective controls and institutional reforms etc. have been mentioned. The changes in the structure of domestic production both in the agricultural and manufacturing sectors clearly indicate the built-in nature of inflationary pressures. As for as international factors are concerned, the inelasticity of India's exports coupled with the fluctuating terms of trade (with long-term
deterioration) made its exports earnings inadequate and undependable. The uncertainty as to the magnitude and timing of capital inflows has further added to our difficulties in financing imports. Consequently, we have been compelled to resort to costly and in certain cases irrational import substitution which is one of the major factors to reckon with in explaining price trends.

The structuralist variables have been identified and some of them relating to fiscal development and foreign trade are included in the regression analysis attempted in chapter 4. The major conclusions emerging out of the regression analysis can be stated as follows:

i) A modified Harberger's model, including Government expenditure, real income and acceleration coefficient as explanatory variable, seems to fit the Indian data well.

ii) The money supply with one year lag has larger explanatory power than that of without lag.

iii) The introduction of the income with one year lag in the Harberger's model does not improve the explanatory power of the equation.

iv) The acceleration factor did not turn out to be a significant factor in explaining inflation.

v) Government expenditure measured in current prices has been found better in explaining movement in general price level than expenditure at constant prices. Further, expenditure with one year lag performed better than without lag.
vi) The regression equation which include money supply with one year lag and the ratio of income originated in agriculture to that in manufacturing sector shows very high $R^2$ and both the regression coefficients are statistically significant. They also have the expected sign.

vii) The regression equation which include export and import unit value index as well as money supply as explanatory variable, has very high $R^2$. Regression coefficients of all the variables are significant except the regression coefficient of import unit value index which appear to be because of the high correlation between export and import unit value indices export prices compared to import prices have exerted greater influence on domestic price level.

viii) Deficit financing as an explanatory variable explain 37 per cent variation in domestic price level. Its coefficient has the expected sign and is also statistically significant.

ix) The equation which include income, money supply and deficit in current account of the balance of payment has very high $R^2$. The regression coefficients of money supply and income have the appropriate sign but the regression coefficient of the deficit in current account of the balance of payment has unexpected sign. Perhaps the two dominant variables have swamped the effect of the foreign trade variable.

x) The ratio of the import and NNP at current prices as an explanatory variable did not performed well.
In developing economies, the behaviour of factor shares depends more on the institutional, social and political factors than on the economic factors like those observed in case of advanced economies. In such economies, development in all the economic social and political fields took place inter-dependently and kept pace with one another. Consequently, considerable harmony and stability in various fields of activities could be achieved. The present-day developing economies face the problem of duality with advanced political and labour organisations generally imported from or affiliated to the advanced ‘ideological blocks’ asked to co-exist with mass poverty and stagnant growth. The pattern of ownership of landholdings, educational opportunities, social set-up and contact with outside world are the factors of fundamental importance in determining distribution of relative factor shares in developing economies. The greater the influence they can exert the lower the role of economic factors like rise or fall in the level of prices will be.

So we find that changes in the distribution of national income arises because of a number of factors. But the two important factors responsible for the changes in the distribution of national income are:

(i) changes in the prices level

(ii) changes in the level of productivity accompanied by changes in the level of employment of factors.

Therefore even if we assume that other factors are not
significant, we can not attribute the changes in the distribution of income entirely to the inflationary process. However, since the annual rate of growth of prices has far exceeded the annual rate of growth of output during the entire period of study, we could ascribe the determining role in the redistribution of income to inflationary process.

Shares of compensation of employees, rent and mixed income of self-employed in the net domestic product have declined from the year 1970-71 to 1984-85, while that of interest and profit and dividends have increased over the given period. Unlike this behaviour of factors income shares in net domestic product, the shares of compensation of employees, profit and dividends as well as mixed income of self-employed in agriculture are almost constant from 1970-71 to 1984-85 and the degree of constancy is greater than any other sector of the economy. The behaviour of the shares of factors income in the secondary sector is quite similar to their behaviour in the net domestic product except that, in the secondary sector the share of profits and dividends is constant and the share of rent has marginally increased over the period under study. In the services sector like transport, communication and trade the shares of rent, profit and compensation of employees have declined and the share of the mixed income of self-employed has considerably increased, while that of interest has remained almost constant over the period 1970-71 to 1984-85.
Our analysis of the average annual real earnings of workers reveal that workers in the unorganised sector—particularly agricultural workers were the worst affected by inflation in India. The very nature of employment of workers in the unorganised sector, both in agriculture and industry, prevents them from organising themselves to secure protection against inflation.

Though the real wages of workers in Indian industry have increased during the period under study, the increase has not been smooth. Further, the share of workers wages in the value of production and value added by manufacture has steadily fallen.

The most important source of employment and income in India is not wages but self-employment mainly in agriculture. Though the income of the self-employed in agriculture is stable, this does not mean that they have not gained from inflation. But it is also a fact that all of them have not gained from inflation.

Our survey of the studies on inter-sectoral terms of trade reveal that, by and large, the terms of trade have remained favourable to agriculture since the mid 1960s when the minimum support price policy was adopted on a regular continuous basis but they have become unfavourable since 1974-75 mainly because the rise in foodgrains prices and other farm product prices could not keep pace with prices of products of intermediate and final use purchased by
agriculture from the non-agricultural sector. So while the inflation during sixties turned terms of trade in favour of agriculture, the inflation during seventies did it other way round. An important factor responsible for the movement of terms of trade against agriculture since 1974-75, is the agriculture price policy of the government.

While the movement of terms of trade in favour of manufactured products from the year 1974-75 has largely been because of the sharp increase in the prices of manufactured products, the fluctuations in the terms of trade has largely been because of the fluctuations in the prices of agricultural products. The sharp increase in the prices of fuel, power, light and lubricants from the year 1973-74 seems to have increased the cost of production of the manufactured products and thus their prices. The pace of the increase in the prices of foodgrains slowed down considerably after the year 1975-76 and it has been instrumental in bringing down the rate of increase in the prices of agricultural products.

Fluctuations in the prices of agricultural products is more than that of manufactured products and the large fluctuations in the prices of foodgrains are mainly responsible for the fluctuations in the prices of agricultural products.

Our analysis of income redistribution between agricultural and non-agricultural sectors reveal that large
amount of income has been transferred from agricultural to non-agricultural sector via the movement of the relative prices.

To sum up we can say that besides monetary and fiscal factors, the existing institutions and structural changes influence the behaviour of prices in a developing economy like India. Hence the anti-inflation war must be fought over a wider area of the economy and not merely at the spending point. Apart from demand management through monetary and fiscal measures, an effort should be made to manipulate institutional and structural factors to tackle the problem of inflation in a long-run perspective.

Our analysis of the effects of inflation on factorial distribution of income brings out that, inflation has redistributed income in favour of interest and profits. Share of the compensation of employees, in the net domestic product as well as in the income of different sectors of the economy (with the exception of few) has declined during the period under study. Our analysis of the average annual real earnings of workers reveal that workers in the unorganised sector particularly agricultural workers were the worst affected by inflation in India. Though the real wages of workers in Indian industry have increased during the period under study, the increase has not been smooth. Further, the share of workers wages in the value of production and value added by manufacture has steadily registered
downward tendency.

Terms of trade had been unfavourable to agriculture since 1974-75, mainly because the rise in foodgrains prices and other farm product prices could not keep pace with the prices of products of intermediate and final use purchased by agriculture from the non-agricultural sector. Compared to the prices of manufactured products the agricultural prices have tended to show greater flexibility both in the upswing and downswing of the business cycle. Thus it seems that the sharp fluctuations of the terms of trade between agricultural and industrial sectors have been largely contributed by a relatively greater variability of agricultural prices.