CHAPTER 6

SUMMARY AND CONCLUSIONS
In this study we have examined the structural changes and growth performance of the Indian economy and contrasted it with the happenings across a set of countries at different levels of development. The Indian economy is first examined in isolation and then an inter-country analysis is carried out where some of the features depicted by the Indian economy are further tested.

The structural changes in the Indian economy are examined on the basis of twenty two structural variables as were identified by Syrquin and Chenery (1989). We also examine growth rates and their variabilities for the Indian economy and also for a set of countries at different levels of development.

It was noticed that the fluctuations in the rates of growth of Net Domestic Product for the Indian economy were quite pronounced. The first decade (1950-51 to 1960-61) was marked with relative stability followed by two decades (i.e., 1960-61 to 1970-71 and 1970-71 to 1980-81) with high fluctuations. The fourth (1980-81 to 1987-88) decade again showed relative stability. The scenario of different sectors, viz., agriculture, industry and services was also not different than the overall trend. But among all the sectors agriculture sector underwent highest fluctuations, followed by the industry sector. The services sector faced relatively low fluctuations. The third decade experienced the highest level of fluctuations for all the sectors. High growth rates were accompanied with low
fluctuations and vice-versa. In this process primary sector played an important role. In primary sector it was the agriculture sub-sector which showed the highest instability. It was also noted that the fluctuations in the public utilities and construction aggravated the instability in the secondary sector and also contributed to overall instability.

A comparison of our results with that of Syrquin and Chenery (1989) (S&C) showed:

i) The changes in the private consumption for the Indian economy were in the same direction as was seen in S&C study. The proportion of private consumption was declining in both the cases.

ii) The behaviour of investment pattern was different for the Indian economy than that of S&C study which showed a steady increase in the investment level, the Indian data showed no such regularity.

iii) The trend in the exports and imports for the Indian economy also showed a different pattern.

iv) Changes in production structure of the Indian economy, particularly in the manufacturing and services sectors, for the year 1987-88 resembled to a much higher level of per capita income in Syrquin and Chenery study ($2000). There were however some differences in terms of shares of agriculture, utilities and construction. In terms of occupational diversification for the same year, it was noted that the structure of labour force in the Indian economy resembled to a much lower level of per capita income ($
This may be to some extent an outcome of the process of output generation which had distinct bias towards heavy industries and high capital intensity.

The labour productivity relatives, as in S and C study, were calculated through dividing the sectoral share output by sectoral share employment. It was noted that the productivity relatives for the services sector were highest throughout, except for 1971. It appeared that contrary to expectations the manufacturing sector was not emerging as a leading sector in terms of output composition and occupational diversification. It is possible that prolonged periods of slow and unsteady growth (1960-61 - 1970-71 and 1970-71 to 1980-81 deterred industry from emerging as an engine of growth.

Rural-urban distribution of population over time in the Indian economy showed somewhat haphazardous changes. The decade that showed highest rates of industrial growth (1980-81 to 1987-88) also showed deceleration in urbanisation. The process of industrialisation and urbanisation lacked organic interdependences. This may be to some extent an outcome of policy induced locational choices and negative externalities becoming important, particularly in large cities.

The regression results, which were obtained by adopting the Cochrane-Orcutt method, largely supported conclusions observed through the simple analysis. As per capita income and population increased the share of agriculture sector declined which was compensated by a rise in the shares of industry and services
sectors. The proportion of food consumption also declined with rising per capita incomes. The net income from abroad did not play any significant role in determining the structural changes in the Indian economy.

We may now form an inter-country analysis. The overall fluctuations among different countries were quite excessive. The decadal and overall pattern of growth across countries revealed:

i) Low rates of growth as in Indian economy, were generally accompanied with high fluctuations.

ii) Countries having medium growth and particularly those which were showing high growth generally showed absence of relative instability. Similar pattern was observed for the Indian economy during the first and the fourth decade.

iii) Agriculture sector was not the only sector that contributed to low growth and high fluctuations. In fact in the low growing countries the instability could arise due to the behaviour of any of the sectors of the economy.

iv) Services sector was generally contributing the least to the instability, irrespective of level of growth.

v) In the case of some of the countries with low growth it was possible for agriculture sector to emerge as the maximum gainer. Countries having medium or high growths generally had a declining share of agriculture.

vi) Industrial sector appeared as the maximum gainer in majority of countries which were experiencing high growth rates. It appeared that in high growth countries industrial sector was indeed acting as an engine of growth. Kaldor's thesis about
industry as an engine of growth may still have relevance for high growth economies.

An attempt was also made to study the relationship between per capita income, growth rates and fluctuations. It appeared that there was absence of relationship between per capita income and growth rates or fluctuations. But a strong negative relationship persisted between the growth rates and the fluctuations. The relationship between the level of per capita incomes across countries over two decades was noted to be positive and very high. The ranks of the countries in terms of level of per capita income showed invariance or relative stability over two decades.

Regression results in an inter-country analysis showed the following results:

1) In both the periods (i.e., 1974 and 1986) net income from abroad did not play any significant role in determining changes in the sectoral shares. It appeared that the structural changes across the countries, as well as for the Indian economy, were a function of impulses internal to the economy.

2) Per capita income played an important role in determining sectoral shares, in fact exclusive role in the first period,

3) Population exercised a significant influence in altering sectoral shares during the second period.

Regression results were obtained for two types of samples. In the first sample all countries were included whereas in the
second sample the developed countries were excluded. While comparing the results of these two different samples, it was noted that unlike the results for industry sector in the first sample (for the second period) second sample obtained positive signs for the estimated coefficients. The results obtained in the second sample seemed to be in conformity with the results of traditional research on development patterns.

Unlike in the case of sectoral shares of output, the time series was not available for the sectoral shares of labour force. Therefore, only two point of time data was taken (i.e. 1965 and 1980). Sectoral productivity relatives across countries for 1980 were scanned. These productivity relatives were obtained through dividing sectoral output share by sectoral labour force proportion.

It was noted that almost all the developing countries experienced changes in the occupational structure, although these were not as pronounced as in the case of output proportions. Secondly, it was observed that for almost all countries the agriculture sector was losing its relative importance. In these countries the industry and services sectors were gaining in their relative importance.

The productivity relatives for most of the developing countries were highest in services sector. Only in China the industry sector had the highest level of relative labour productivity and it was the highest gainer in terms of labour absorption.
In the category of fast developing countries Malaysia and Indonesia were experiencing a rapid diversification in the occupational structure. The services sector appeared to be the highest gainer in this process. The productivity relatives in these countries however were highest in the industry sector. Possibly fast occupational diversification and high labour productivity in industry facilitated these two countries to perform quite impressively during the eighties. In Singapore and South Korea the labour force proportion for industry rose rather rapidly.

In the case of developed countries it was seen that the agriculture sector continued to lose its importance and services sector was the only gainer, except in Japan where industry also gained. The gap between productivity relatives among different sectors for these countries were also narrow except for Germany and Japan. It appeared that the process of transition to a mature economy was not yet over in these two economies.

The association between urbanisation and occupational diversification for developing countries was positive and estimated Chi-Square statistic significant at 10% level of significance. Our data however did not lend support to over-urbanisation thesis which implies an excessive migration to urban areas not supported by the changes in the economic structure. In quite a few countries rate of (medium or high) occupation diversification out-paced the rate of urbanisation. This was particularly true for some countries (China, Indonesia and Malaysia) which emerged as leading performers in the eighties.
What is the off-shoot of our analysis? Seemingly the recent experience about structural changes in India and other developing countries indicates a deviation from the path chalked out by Kuznets, Clark and Kaldor. Services, rather than industry, playing a leading role in changes in output composition and labour force allocation; share of agriculture not declining with rising incomes in some countries, services also leading in productivity relatives in most of the countries despite their rising share in income and employment, are some of the pointers of such deviations. These deviations can be an outcome of alteration of a fundamental nature in the economic forces and or distortions introduced by policy regimes. Our analysis does not provide any conclusive evidence on these issues. Analysis, preliminary though it is, does suggest that some of the distortions are an outcome of sluggish and unstable growth. For fast growing developing countries structural changes are not dissimilar to the ones outlined by the celebrated research in this area. It is also possible that policy regimes in different countries have induced a pattern of industrial growth not justified by resource endowments and thereby undermining its role in labour absorption. At the same time services in terms of employment and income share emerge as leading sector, possibly due to variety of factors - easy access to surplus labour, wage rates that are institutionally determined (particularly in the Government sector) rather than by market forces, pressure on state to provide economic and social services, and so on. The
theme of structural changes certainly deserves further enquiry to understand its various dimensions. May be an indepth study of several countries and a cross section over a wider set of countries would give definite answers.