ABSTRACT

More effective management of public finances continues to be the central challenge facing all levels of government in India. The fiscal crisis of 1990’s was precipitated mainly by the growth of public expenditure in the 1980’s. An attempt was made to resolve this crisis through the introduction of stabilisation and structural adjustment programmes. One of the important planks of the stabilisation measures was the compression of public expenditure. This was necessary in order to curtail the growing revenue and fiscal deficits at the Centre as well as at the State level since early nineteen eighties.

The fiscal measures initiated in 1991 and thereafter proved inefficient as major fiscal slippages were observed in 1997-98. The rate of growth of non-developmental expenditure was even faster and could not be controlled to a satisfactory level. Realising the seriousness of the fiscal situation and the need for fiscal correction, two major initiatives were taken by the government, namely, the setting-up of Expenditure Reforms Committee in February, 2000 and passing Fiscal Responsibility and Budget Management (FRBM) Act in 2003.

The present study is an attempt to analyse empirically the trends in the Central government finances for the period 1980-81 to 2003-04 and to examine various steps taken by the government in reforming the system of expenditure management. This study is conducted exclusively for Central government expenditure. The study is organised into eight chapters.

The first Chapter is of introductory nature which describes briefly what public expenditure means in economics and how it emerged as a separate area of interest amongst the researchers of public finance and a matter of concern among planners and policy makers. An outline of various leading theories of public expenditure growth is also given in this chapter. This is followed by a discussion on the philosophy of what reforms, in general imply; and when and why they are needed. This is in an attempt to grasp an idea of the nature and the causes of various reform measures taken from time to time in the system of public expenditure in India. The chapter ends with a description of objectives, database, research methodology and limitations of this work.
The word ‘public expenditure’ may be defined as the expenditure of the public sector where relationships are adequately integrated for a common pursuit. In other words, public expenditure is the expenditure incurred by public authorities-Central, State and local governments, either for the satisfaction of collective needs of the citizens or for promoting their economic and social welfare. The expenditure is also incurred by the government for its own maintenance.

In broad terms, public expenditure is a simple concept. It denotes the dispensation by the State, on non-market criteria of economic resources that it has acquired from firms and households. Public Expenditure is undertaken to satisfy those wants, which the individuals in their capacity, can satisfy only marginally, and that too, cannot efficiently. It is because of the fact that such expenditure is always associated with the provision of public goods and services such as defence, railways, roads, canals, health facilities and large educational and training establishments, etc. The people cannot purchase these types of services individually, because their consumption is non-rival, nonexcludable and hence, collective in nature. Moreover, it would be costlier for an individual to incur such expenditures even in a small portion. The State, therefore, incurs those expenditures that the people in their individual capacity either would not or cannot incur.

In the public finance literature, total government expenditure is classified depending on the purpose, which it is put to. In India, there is an economic-com-functional classification of total government expenditure as proposed in the budget documents. According to this classification, total government expenditure is examined from different angles. It is broadly classified as expenditure on revenue account and expenditure on capital account. These categories are further sub-divided into developmental and non-developmental expenditures.

With the growing importance of economic planning in developing countries like India, yet another classification of government expenditure has emerged assuming greater significance and has been in practice in India since 1985. According to this classification, the revenue and capital accounts of the budgets have come to be divided into ‘plan’ and ‘non-plan’ heads. However all these classifications are not completely heterogeneous and some kind of over lapping is found between them.

With the passage of time, the functions and hence, the role of State in economic activities has increased considerably. The subject of public expenditure has thus, attracted the attention of not only the economists but also political scientists and
sociologists. Both the theory and practice of public expenditure had undergone a radical change since 1950.

Amongst various expenditure growth theories, Wagner’s law, displacement hypothesis, productivity lag hypothesis, development approach, median voter demand theory and the role of bureaucratic power are discussed in Chapter 1. It is found from the discussion of these theories that no satisfactory generalisation regarding the behaviour of public expenditure growth could be made so far.

Our discussion of reforming a system, in general and system of public expenditure management, in particular highlighted the fact that if a system has some agreed weaknesses, then it needs to be corrected by bringing about significant changes to it. This idea has been applied to a modern State in which, government performs all functions to ensure social welfare. But to perform all functions efficiently, government requires huge resources. In order to avoid any kind of mismanagement in resources, good governance is thus required. It has been argued that for a good governance, the criteria of equity, efficiency and legitimacy should be satisfied. Thus, reforms in the system of public expenditure management should not be seen independent of these three criteria of good governance. Besides this, the four pillars of governance also relevant to public expenditure management are-predictability, transparency, participation and accountability.

During the past two decades, there has been a deterioration in the Central government finances in India. There is a wide agreement that the budgets of Centre and States are seriously out of balance and the restoration of fiscal balance is to be achieved. There is not only mismatch between revenue and expenditure resulting sizeable revenue and fiscal deficits, the position of government expenditure is also quite out of line with the proper role that the governments should be playing and the functions they should be performing at the present stage of development. The fiscal crises, however, would not have assumed such grave proportions, if expenditures were largely diverted to finance planned development. Much of this expenditure was unproductive. Consequently, the non-developmental expenditure of the Centre has been registering high growth and has claimed a larger percentage of the total government expenditure. Hardening of the budget constraint on the one hand, and greater awareness to improve efficiency in transforming public expenditures into outputs and outcomes, on the other, underlined the need to improve process and strengthen institution in Public Expenditure Management.
The main objectives of the present study are as follows:

(i) to analyse empirically the growth in aggregate Central government expenditure and developmental and non-developmental expenditures along with their components for the period 1980-81 to 2003-04,

(ii) to identify main factors influencing the growth of expenditure and

(iii) to examine various efforts made by the government from time to time in reforming the system of expenditure management.

In order to support these objectives, following hypotheses were developed and tested during the course of this work:

(i) Wagner’s Law; that the growth of government expenditures in India has been much faster than the growth of national income over the period under study and the rapid growth in expenditures is the result of several economic as well as non-economic factors, as stated by Wagner,

(ii) economic reforms, initiated in India in 1991 did not have any significant impact on the size and composition of Central government expenditures and

(iii) the increase in the price index of public sector goods relative to the economy has also caused a jump in Central government finances.

In Chapter 2 of this thesis, a brief survey of theoretical as well as empirical works on public expenditure is presented. The literature reviewed in this chapter comprises of time series as well as cross sectional studies. The theoretical review suggests that no general theory of public expenditure could be established completely owing to the intricate relationship of the variables both economic and non-economic and public expenditure. Likewise, most of the empirical research on this subject concentrated on the complex relationship between public expenditure (both in aggregate as well as category-wise) and other economic as well as non-economic variables. These studies relate to various aspects of government expenditure. A closer examination of the empirical studies reveals that even if one aspect of public expenditure is considered, studies are diverse in respect of their findings. This is either due to the type of data they have used or on account of the differences in the methodology employed by them. We have also reviewed various initiatives of the government of India over last fifty years for reforming the system of public expenditure management and also tried to examine their implementation process.
In the third Chapter, trends in total government expenditure are analysed in absolute as well as in relative terms. The analysis of the trends in aggregate Central government expenditure reveals that over a period of 24 years from 1980-81 to 2003-04, the observed growth of expenditure has been much higher than what is found, when converted in per capita real terms. The real per capita expenditure at 1993-94 prices increased by 2.11 times only as against the increase in total real expenditure by 3.36 times and the expenditure in nominal terms rose by 9.76 times over the period under study. This reflects the significance of population and prices influencing the growth of government expenditure. Further more, the increase in expenditure in relation to national income (GDP (at factor cost) in our case) has been slightly less than to-fold over the study period.

The growth of government expenditure on revenue account was more pronounced than that on capital account both in nominal and in real terms. The correlation coefficient between expenditure on revenue and capital accounts in real terms is found to be negative (-0.27) for the period 1980-81 to 2003-04, indicating that in real terms, expenditure on revenue account has increased at the cost of expenditure on capital account. This is not a good sign in view of growing need for investment in infrastructure and basic social services.

For a more comprehensive analysis, we have divided the study period in to two periods, namely, the pre-reform period from 1980-81 to 1990-91 and the post-reform period from 1990-91 to 2003-04. The comparison of government expenditure growth between pre-reform and post-reform periods shows that the growth of government expenditure has been higher during pre-reform period than during post-reform period, both in nominal as well as in real terms. This is also true when expenditure is analysed in relation to population and GDP (at factor cost). It has been observed that the average share of government expenditure in GDP (at factor cost) has increased on revenue account but declined on capital account from pre-reform period to post-reform period. Also, the decline on capital account was so sharp in comparison to the increase on revenue account that the average share of total expenditure in GDP also fell marginally from pre-reform period to post-reform period. The annual average growth rate of expenditure during pre-reform period was even higher than that of GDP (at factor cost). Similar case is observed when the expenditure is decomposed into revenue and capital accounts. A high positive correlation of 0.93 during pre-reform period and a negative correlation of -0.54 during
post-reform period between revenue and capital accounts of expenditures in real terms outlines the fact that it was during post-reform period that government had to curtail large part of its capital expenditure to meet current obligations and to fill up the gap on revenue account. However, deterioration on revenue account started since the mid 1980's. The annual percentage changes over previous year in aggregate Central government expenditure exhibit more fluctuations on capital account and less on revenue account, when the impact of price changes is not eliminated. However, when converted in per capital real terms, sharp fluctuations are visible on revenue account relative to capital account in the annual growth of government expenditure, except during pre-reform period, when fluctuations on capital account were larger.

The elasticity coefficients of total Central government expenditure with respect to GDP (at factor cost), both in nominal as well as in real terms at 1993-94 prices fell from pre-reform period to post-reform period. It was more than unity on revenue account both in nominal as well as in real terms during pre-reform period, post-reform period and during the entire study period. But a negative elasticity coefficient is found on capital account in real terms during post-reform period and during the study period as a whole. The elasticity coefficient of per capita real expenditure with respect to per capita real GDP (at factor cost) has been higher on revenue account and lesser on capital account, when compared with its elasticity coefficient in nominal and in real terms. The negative income elasticity coefficient of expenditure on capital account is also observed when the influence of prices and population is eliminated. This makes the picture more clear that the degree of responsiveness of government expenditure with respect to national income, when there is no influence of price changes and population growth, is greater on revenue account than that on capital account. Further, it may also be inferred that in order to meet its current expenditure, the government has reduced capital expenditure.

In chapter 4, an attempt is made to trace the growth of developmental and non-developmental expenditures. Trends in aggregate Central government expenditure do not reflect the areas where government's focus has been more and which are the areas where government gave less priorities. For this purpose, aggregate expenditure is decomposed into the developmental and non-developmental expenditures. The trends in these two categories of expenditures highlight some series facts. The significant impact of fiscal correction programmes in the era of economic reforms may be seen on developmental expenditure whose annual average growth rate
has fallen from pre-reform period to post-reform period not only in nominal terms but also in per capita real terms. Furthermore, the growth on capital account in per capita real terms was negative during pre-reform and post-reform periods. The share of developmental expenditure in total expenditure as well as in GDP (at factor cost) has also declined from pre-reform period to post-reform period.

Likewise, the annual average growth rate of non-developmental expenditure has come down from pre-reform period to post-reform period in nominal terms, in real terms and in real terms per head of population. But the relative share of non-developmental expenditure in total expenditure as well as in GDP (at factor cost) has gone up on average from pre-reform period to post-reform period. Besides this, correlation coefficient between capital account of developmental expenditure and revenue account of non-developmental expenditure in per capita real terms is found to be negative. Moreover, as stated in preceding paragraph, annual average growth rate on capital account in case of per capita developmental expenditure in real terms was negative during pre-reform and post-reform periods. However, the revenue account of per capita non-developmental expenditure in real terms registered a high annual average growth rate during these sub-periods. This indicates that in per capita real terms, non-developmental expenditure on current account has been financed through a reduction on capital account of developmental expenditure during pre-reform and post-reform periods. This seems contrary to what government is committed in respect of increasing expenditure on developmental areas like physical and social infrastructure, poverty alleviation programmes, sustaining agriculture growth, etc.

The impact of prices and population seems more sharp when total expenditure is disaggregated into developmental and non-developmental components. It has been found from our analysis that during 1980-81 to 2003-04, the total developmental expenditure has increased by 17.52 times in nominal terms, by 2.98 times in real terms and by 1.87 times in real terms per head of population. Likewise, the non-developmental expenditure has risen by 28.02 times in nominal terms, by 4.77 times in real terms and by 2.99 times in real terms per head of population. This shows that the growth of both developmental and non-developmental expenditures is reduced by almost one-sixth, when the influence of price changes alone is eliminated and even after discarding the price changes, the growth of expenditure is further reduced by almost half, when the impact of population is also eliminated. But when both developmental and non-developmental expenditures have been converted in per capita
real terms, the growth of non-developmental expenditure during 1980-81 to 2003-04 is almost twice of the growth of developmental expenditure, when looked in absolute terms and by almost four times, when looked in terms of annual average growth rate.

The annual growth in developmental and non-developmental expenditures over previous year reveals more fluctuations on capital account and less on revenue account in case of both developmental and non-developmental expenditures, in nominal as well as in real terms. However, when converted in per capita terms, higher fluctuations on revenue account relative to capital account were observed in the annual growth over previous year in case of both developmental and non-developmental expenditures for the entire study period, both in nominal and in real terms. These fluctuations have declined on revenue account, but increased on capital account in case of both per capita developmental and per capita non-developmental expenditures from pre-reform period to post-reform period.

Elasticity of per capita developmental expenditure in real terms with respect to per capita real GDP (at factor cost) was 2.49 during pre-reform period, which came down to 0.71 during post-reform period. But on capital account, it was negative both during pre-reform and post-reform periods as well as for the entire period. This indicates that during our study period, a proportionate increase in national income let to a proportionate decline in developmental expenditure on capital account in per capita real terms. This is alarming in view of the growing investment priorities in many developmental areas like agriculture, infrastructure, etc. The problem would not have been so serious if the elasticity coefficients were not negative. The negativity of the elasticity coefficient indicates an inverse impact of economic growth on developmental expenditure on capital account. Though during post-reform period, income elasticity of non-developmental expenditure was also negative on capital account in per capita real terms. However, the income elasticity coefficient of total non-developmental expenditure in per capita real terms was more than unity and so was the case on revenue account for the entire study period as well as during pre-reform and post-reform periods.

The fifth chapter is devoted to the analysis of components of developmental expenditure. For analytical purpose, broad components of developmental expenditure (compiled from Indian Public Finance Statistic), namely, social and community services, general economic services and other economic services are analysed. The trend analysis carried out in this chapter suggests that the growth of expenditure on
social and community services in real terms at 1993-94 prices was much lower than its growth in nominal terms over the entire period under study. The growth on capital account was almost half of that on revenue account both in nominal and in real terms. Further, the decline in the elasticity coefficient of social and community services and in its annual average growth rate from pre-reform period to post-reform period, both in nominal and in per capita real terms, suggests that despite large concerns of the government and social scientists for increasing social sector spending, a lot has to be done on this front. Further, even in the post-reform period, it is inevitable for the government to curtail wasteful expenditure and to divert the resources for social sector schemes, though, one can be optimistic as the average of real per capita expenditure on social and community services increased from Rs.85.18 in pre-reform period to Rs.123.91 during post-reform period. The correlation coefficient between revenue and capital accounts in case of social and community services is found to be negative in per capita real terms for the entire period as well as during post-reform period

Among the components of social and community services, education, arts and culture constituted the maximum share on average, for the entire study period, which has also increased from pre-reform period to post-reform period. The share of medical, public health, sanitation and water supply, however, remained almost stagnant during the period under study. The least share is accounted for by urban development, which has also declined from pre-reform period to post-reform period. Similar decline is observed in the case of scientific services and research.

General economic services of the Central government include investment in general financial and trade institutions, special backward areas, foreign trade and export promotion, co-operation, etc. Total government expenditure on these services has fallen form Rs.544.65 crores to Rs.437.63 crores in nominal terms and it came down from Rs.1678.27 crores to Rs.229.63 crores in real terms at 1993-94 prices during 1980-81 to 2003-04. The total per capita expenditure on general economic services has shown a regular increase from 1985-86 to1990-91 and a decrease till 1993-94, both in nominal and in real terms.

As regards various components of general economic services, foreign trade and export promotion constitutes the largest share of 59.63 percent followed by investment in general financial and trade institutions 24.19 percent, international
financial institutions 9.76 percent, other services 6.27 percent, co-operation 3.91 percent and 0.59 percent share of special and backward areas.

In addition to general economic services, agriculture and allied services, industry and mineral, transport and communication, railways, post and telegraph, etc. are also economic in nature as the expenditure of the government on these services enhances the productive capacity of the economy and generates more income and employment to the people. These services are put together under the category of other economic services for analysis. The annual average growth rate of expenditure on these services was –0.26 percent in per capita real terms, 1.78 percent in real terms and 10.21 percent in nominal terms during 1980-81 to 2003-04. The annual average growth rate of total expenditure on other economic services shot up considerably in nominal terms, in real terms and in per capita real terms from pre-reform period to post-reform period. Its income elasticity is found to be higher in per capita real terms than in nominal terms for the entire study period. This elasticity coefficient has fallen from pre-reform period to post-reform period, both in nominal and in per capita real terms. In real terms, average per capita expenditure on other economic services has declined from pre-reform period to post-reform period, because increase on revenue account was offset by a faster decline on capital account. The negative correlation is observed between revenue and capital accounts of other economic services in per capita real terms during pre-reform period.

Among various components of other economic services, agriculture and allied services accounted for the largest share of 38.26 percent on an average followed by industries and minerals 35.11 percent, transportation and communication 25 percent, railways 15.75 percent and post and telegraph 2.81 percent during the period 1980-81 to 2003-04. It has also been observed that during this period, the share of agriculture and allied services and transportation and communication got almost doubled with an increase in their average shares from pre-reform period to post-reform period. However, the shares of industry and minerals, railways and post and telegraph have come down over this period with a fall in their averages from pre-reform period to post-reform period.

A point that has been observed with regard to the three services under discussion is that the annual percentage changes in these services over previous year in per capita real terms reveal large fluctuations on revenue account in case of social and community services, on capital account in case of general economic services and
again on revenue account in case of other economic services during 1980-81 to 2003-04. During pre-reform period, both social and community services and general economic services, in per capita real terms, exhibited sharp fluctuations in their annual percentage changes on capital account. However, during post-reform period, more fluctuations on capital account are visible only in the annual percentage change in other economic services.

During the period 1980-81 to 2003-04, expenditure on social and community services has grown almost 26.93 times in nominal terms, 4.59 times in real terms and about 2.85 times in per capita real terms. On general economic services, it was 0.81 times in nominal terms, 0.14 times in real terms and 0.09 times in per capita real terms. Similarly, expenditure on other economic services in nominal terms, in real terms and in per capita real terms grew by nearly 15.09 times, 2.57 times and 1.61 times respectively. This indicates that expenditure on these services over the study period has increased almost six times only because of inflationary pressure and about twelve times because of both population growth and inflationary pressure.

As percent of developmental expenditure, other economic services accounted for the largest average share of 30 percent followed by the average share of social and community services 21.09 percent and general economic services 4.35 percent during 1980-81 to 2003-04. During this period, whereas the average share in case of social and community services and general economic services in developmental expenditure was greater on revenue account than on capital account, in case of other economic services, capital account attracted the larger share as compared to the share on revenue account. The average share in developmental expenditure of social and community services increased, but that of general economic services and other economic services declined from pre-reform period to post-reform period. The shares of social and community services and general economic services showed large fluctuations on capital account, whereas that of other economic services on revenue account for the entire study period. The same is also observed during post-reform period. But during pre-reform period, the shares of all these three components depicted sharp fluctuations on capital account.

The largest average share in total expenditure has been that of other economic services followed by social and community services and general economic services. Whereas the average share of general economic services and other economic services declined, the average share of social and community services increased slightly from
pre-reform period to post-reform period. On the other hand, the share of all these services in GDP (at factor cost) declined from pre-reform period to post-reform period. The average share of social and community services in total expenditure as well as in GDP (at factor cost) is much less than what is required. The share of social and community services, general economic services in total expenditure as well as in relation to GDP (at factor cost) indicate large fluctuations on capital account as compared to those on revenue account for the entire study period and during pre-reform period. However, during post-reform period, share of other economic services in total expenditure exhibited sharp fluctuations on revenue account than capital account.

The largest share in total expenditure is accounted for by industries and minerals 3.97 percent followed by agriculture and allied services 3.41 percent, education, arts and culture 2.19 percent and finally, the share of medical, public health, sanitation and water supply 0.83 percent on average during 1980-81 to 2003-04. It has been found that the average share of agriculture and allied services, education, arts and culture and medical, public health, sanitation and water supply rose from pre-reform period to post-reform period, except industries and minerals which registered a fall in its average share. None of these categories, however, revealed any systematic trend throughout the period under study. When these components are examined in relation to GDP (at factor cost), almost similar trends are visible.

**Chapter 6** deals with the analysis of the components of non-developmental expenditure. For analytical purposes, we have considered defence expenditure, expenditure on committed liabilities (comprising of interest payments, administrative services and pension and other retirements benefits) and the rest categories of non-developmental expenditure such as border road, fiscal services, organs of State, etc. are lumped together under the head of miscellaneous services. Expenditure on committed liabilities has increased rapidly with an annual growth rate of 24.15 percent in nominal terms, 10.06 percent in real terms and 7.86 percent in per capita real terms during 1980-81 to 2003-04. But this annual average growth rate fell considerably in nominal terms, in real terms and in per capita real terms from pre-reform period to post-reform period. Its income elasticity was 1.62 in pre-reform period, 1.00 in post-reform period and 1.30 in the period as a whole under study in nominal terms. But in per capita real terms, this elasticity coefficient was 3.46 during pre-reform period, 1.35 during post-reform period and 2.12 for the entire study period.
(being higher than those in nominal terms). During the period 1980-81 to 2003-04, per capita expenditure on committed liabilities has increased by 29.6 times in nominal terms and by 5.04 times in real terms. Here, it may be interesting to recall that over this period, the increase in expenditure on committed liabilities was 47.2 times in nominal terms, 29.6 times in nominal terms per head of population, 8.03 times in real terms at 1993-94 prices and 5.04 times in real terms per head of population. On comparing these trends, it may be said that nearly 6 times increase in expenditure on committed liabilities is contributed by price changes alone, whereas the growth of population and price changes together contribute more than 9 times increase in the expenditure on committed liabilities.

Among three components of committed liabilities, interest payments constitute the largest share of 81.15 percent on average followed by the average share of administrative services 11.78 percent and finally, pension and other retirement benefits 7.07 percent during 1980-81 to 2003-04. The average share of administrative services declined, whereas that of pension and other retirement benefits rose from pre-reform period to post-reform period. But the average share of interest payments did not show any sign of change over these sub-periods.

Over a period, defence expenditure has emerged as a major source of non-developmental expenditure. It is, however, justified in view of the situation on the border due to growing tension with neighbouring countries in recent times. For this reason, defence expenditure, both in nominal and in real terms, has grown at annual average growth rates of 12.65 percent and 4.03 percent respectively during 1980-81 to 2003-04. During the same period, its annual average growth rate in per capita real terms was just 1.95 percent. It witnessed rapid increase on capital account than on revenue account in absolute terms as well as in terms of annual average growth rate. Annual average growth rate of defence expenditure has come down from 15.46 percent to 12.37 percent in nominal terms, from 6.66 percent to 4.86 percent in real terms at 1993-94 prices and from 4.41 percent to 2.85 percent in per capita real terms from pre-reform period to post-reform period. The elasticity of per capita defence expenditure with respect to per capita GDP (at factor cost) in real terms was 0.54 during 1980-81 to 2003-04, which fell from 1.22 during pre-reform period to 0.76 during post-reform period. This elasticity was lower than that in nominal terms, except during pre-reform period. It has also been found that the average per capita defence expenditure increased nearly three fold from Rs.119.47 in pre-reform period
to Rs.361.66 in post-reform period in nominal terms. It also increased in real terms from Rs.230.33 to Rs.268.31 during both these periods. The correlation between revenue and capital accounts of defence expenditure in per capita real terms was much higher during post-reform period (0.79) than during pre-reform period (0.25). The annual percentage change in per capita defence expenditure over previous year were observed to be high on capital account in nominal terms and on revenue account in real terms for the entire study period as well as during pre-reform and post-reform periods.

Total expenditure on miscellaneous services has grown nearly by 6.56 times in nominal terms, 1.11 times in real terms and 0.7 times in per capita real terms during 1980-81 to 2003-04. Its annual average growth rates for this period in nominal, in real and in per capita real terms were respectively 11.01 percent, 2.92 percent and 0.47 percent. Expenditure under this category, however, exhibited more fluctuations due to declining trends in real terms than in nominal terms throughout the period under study. Sharp fluctuations are visible on capital account only during pre-reform period. The income elasticity of miscellaneous services in per capita real terms was less than that in nominal terms for the entire study period as well as for the two sub periods of pre-reform and post-reform. The correlation coefficient between revenue and capital account of miscellaneous services in per capita real terms was also very low (0.03) during 1980-81 to 2003-04.

A comparison of pre-reform and post-reform periods would indicate a fall in the annual average growth rate of total expenditure on miscellaneous services in nominal, in real and in per capita real terms from pre-reform period to post-reform period. During post-reform period, negative annual average growth rate and negative elasticity coefficient were observed in miscellaneous services in per capita real terms. A closer examination of the growth of per capita expenditure on miscellaneous services indicates whereas it has gone up from about Rs.97.00 in 1980-81 to about Rs.400 in 2003-04 in nominal terms and came down from Rs.298.85 to Rs.209.45 in real terms over this period. The growth of total per capita expenditure on miscellaneous services is relatively much higher during pre-reform period than during post-reform period in nominal terms. On the other hand, in real terms, it increased rapidly during pre-reform period but declined by more than half during post-reform period.
Among the selected components of miscellaneous services, transfers to States and UT's constitute the highest average share of 63.67 percent, followed by major subsidies 32.13 percent, fiscal service 10.79 percent, and border roads 0.39 percent over the period under study. None of these components of miscellaneous services reveals a systematic pattern of growth.

The average share of committed liabilities, defence and miscellaneous services in non-developmental expenditure were 51.79 percent, 31.71 percent and 48.46 percent respectively during 1980-81 to 2003-04. A point to be noted is that the share of defence expenditure in non-developmental expenditure has been higher on capital account than on revenue account during the study period. But the growth in the share of miscellaneous services in non-developmental expenditure has been much higher on capital account than on revenue account from 1980-81 to 1996-97. In fact, during this period, the share on capital account has been much above 100 percent but after 1997-98 following the fiscal imbalances in the economy, this share came down and became negative in 2003-04. This may be due to large efforts made by the government in reducing the volume of non-developmental expenditure.

The share of the three components under discussion in total expenditure reveals that committed liabilities have attracted on average, the greatest share of government resources followed by miscellaneous services and finally defence. The average share of committed liabilities has gone up, while that of defence and miscellaneous services came down from pre-reform period to post-reform period with lesser fluctuations in these two categories than in committed liabilities. During pre-reform period, the largest share was constituted by miscellaneous services, less by the committed liabilities and least by defence. Likewise, the share of these components in GDP (at factor cost) maintained almost the same order.

Over 24 years from 1980-81 to 2003-04, interest payment has been the largest growing item of total expenditure as regards its average share. It is followed by the average share of defence expenditure, major subsidies, administrative services, fiscal services and pension and other retirement benefits. Among the components of non-developmental expenditure, which witnessed an increase from pre-reform period to post-reform period, the sharp increase can be noticed in the share of interest payment, while administrative services and pension and other retirement benefits showed slight increase over these periods. On the other hand, subsidies, fiscal services and defence have registered a decline in their average shares from pre-reform period to post-
reform period. No other component, except interest payment, showed systematic trend over the period under study. Interest payment depicts continuous increase till 1997-98 and since then, it increased with some years showing marginal fall. Interest payment as percent of GDP also showed an increasing pattern for the entire period under study, except the years from 1995-96 to 2003-04, when it recorded fluctuations.

In Chapter 7 of the thesis, we attempted to identify the main factors which seem convincing to have influence the growth of government expenditure. For our empirical analysis, six factors, namely, per capita income, index of trade openness, technological change, relative price index of public sector goods, socio-cultural and political philosophy of the country and lag value (by one period) of the dependent variable have been chosen and are hypothesised to influence the growth of government expenditure significantly. Four variants of government expenditure have been identified as dependent variables and are expressed in real per capita terms. These include total expenditure, defence expenditure, committed expenditure and non-developmental non-committed expenditure. The period of analysis is restricted to post-reform period only (i.e., 1990-91 to 2003-04).

The regression results suggest that per capita income, index of trade openness, technological change, relative price index of public sector goods, socio-cultural and political philosophy of the country and lag value (by one period) of the dependent variable, taken together, explain 94.3 percent of the variation in total expenditure, 92.7 percent of the variation in defence expenditure, 98.2 percent in committed expenditure and 89.3 percent in non-developmental non-committed expenditure. Per capita income is the only significant explanatory variable for all categories of government expenditure. It explains alone nearly 78.2 percent of the variation in total expenditure, nearly 83.9 percent of defence expenditure, 96.1 percent of committed expenditure and nearly 67.9 percent of non-developmental non-committed expenditure. This finding confirms the findings of earlier studies on the subject and leads us to infer that Wagner’s law holds in case of India for aggregate as well as for various components of Central government expenditure even in the short run. The lag values of total expenditure and defence expenditure are also found significant, indicating the impact of bureaucratic power on the growth of government expenditure. But no such statistical significance is witnessed in the case of lag values of committed expenditure and non-developmental non-committed expenditure. For other explanatory variables also, no statistical significance is observed for our data.
The signs of per capita income, relative price index of public sector goods and that of lag value of expenditure category are in conformity with the priory economic theory. However, for defence expenditure, the sign of relative price index of public sector goods is negative, which is against the basic premise. Socio cultural and political philosophy of the country occurs with a positive sign in case of defence expenditure and committed expenditure, which supports the findings of earlier studies.

Results of Partial Adjustment model for developmental and non-developmental expenditures reveal that about 98.8 percent of the total variation in developmental expenditure is explained by the level of economic development and the developmental expenditure of the previous period, taken together. On the other hand, 99.6 percent of the total variation in non-developmental expenditure is explained by the level of economic development and the previous value of non-developmental expenditure, taken together. Further more, the speed of adjustment between the actual and the desired levels is greater in case of non-developmental expenditure ($\lambda=0.524$) than in case of developmental expenditure ($\lambda=0.235$).

Finally, chapter 8 of this thesis presents the main findings of the present work and outlines some policy recommendations in the light of our findings.